

INTERIM REPORT FOR THE  
REMEDIAL ACTION OF  
MONITORED NATURAL ATTENUATION  
AND EMERGING CONTAMINANT SAMPLING

AT THE

LITTLE VALLEY SUPERFUND SITE  
NYSDEC SITE CODE 905026  
TOWNS OF LITTLE VALLEY AND SALAMANCA  
CATTARAUGUS COUNTY, NEW YORK

JUNE 2019 EMERGING CONTAMINANT SAMPLING EVENT  
AND  
JULY/AUGUST 2019 MNA SAMPLING EVENT

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## EXECUTIVE SUMMARY

The Little Valley Superfund Site (Little Valley Site) is a United States Environmental Protection Agency (EPA) National Priorities List (NPL) site (EPA ID #NY0001233634) and a New York State Department of Environmental Conservation (NYSDEC) State Superfund Program Site (Site Code #905026) with a trichloroethylene (TCE) contaminated groundwater plume that extends approximately eight (8) miles southeastward from the Village of Little Valley to the northern edge of the City of Salamanca in Cattaraugus County, New York. Watts Architecture & Engineering (Watts), in conjunction with AECOM Technical Services Northeast, Inc. (AECOM), has been involved with the Little Valley Site on behalf of NYSDEC since 2002. As part of the ongoing efforts to assist NYSDEC with this listed site, Watts and AECOM were directed by NYSDEC to perform groundwater monitoring well sampling events as part of the continued Monitored Natural Attenuation (MNA) program under the prescribed Remedial Action for this site. In addition, Watts and AECOM was directed to collect groundwater monitoring well sampling for emerging contaminants (ECs), including per- and polyfluoroalkyl substances (PFAS) and 1, 4 dioxane. This report presents the data collected from the third round of MNA groundwater samples collected by Watts and AECOM to assess the success of the MNA program called for in the 2005 Record of Decision (ROD) and the EC groundwater samples collected by Watts and AECOM. A full assessment of the success of the MNA program will be provided at NYSDEC's request, and pending receipt of all historical data.

Prior to the initial round of MNA sampling, thirty-four (34) groundwater monitoring wells were selected by NYSDEC for inclusion within the MNA program at the Little Valley Site. However, one (1) of the wells could not be located; therefore, only thirty-three (33) of the thirty-four (34) wells were included within the list of MNA monitoring wells.

The collection of groundwater samples as part of the EC sampling program included low-flow sampling techniques at six (6) of the thirty-three (33) monitoring wells, including one monitoring well at each of the previously determined Little Valley Site study areas. All of the EC analytical results were below the New York Drinking Water Quality Council (NYDWQC) proposed maximum contaminant levels (MCLs) to the New York State Department of Health (NYSDOH) of 10 parts per trillion (ppt) for PFAS and 1 parts per billion (ppb) for 1, 4 dioxane. Thus, no further EC sampling at any of the MNA wells is recommended at this time.

The MNA sampling program involved the collection of water samples using passive diffusion bag (PDB) sampling techniques at the thirty-three (33) monitoring wells and low-flow sampling techniques at four (4) of the monitoring wells. Of the thirty-three (33) water samples obtained using PDB sampling techniques and submitted for VOC analysis, the laboratory detected TCE or the associated breakdown (a.k.a. daughter) compounds within twenty-seven (27) of the groundwater samples. Of the four (4) monitoring wells also sampled using low-flow sampling techniques and submitted for the analysis of VOCs and the expanded parameter suite, the laboratory detected TCE or the associated daughter compounds within all four (4) of the groundwater samples. The four (4) monitoring wells sampled using the low-flow sampling techniques produced similar and relatively consistent results compared to the samples collected with the PDB sampling techniques.

The TCE concentrations were relatively consistent with the results obtained during the first two sampling events completed in 2018. While a consistent trend of attenuation is not completely evident over the shorter period of time spanning the three sampling events completed by Watts and AECOM, the overall trend of decreasing levels of TCE when compared to the historical contaminant levels is generally evident

throughout the Little Valley Site at all but a few monitoring wells. It should be noted that BIA-MW-6 shows an elevated TCE concentration when compared to the concentration of 1.2  $\mu\text{g/L}$  detected in 2015 (75  $\mu\text{g/L}$  detected in the first round of sampling in 2018, 180  $\mu\text{g/L}$  detected in the second round of sampling in 2018, and 100  $\mu\text{g/L}$  detected in the third round of sampling in 2019).

None of the thirty-three (33) wells that were sampled under this Interim Report are recommended for removal from the MNA program at this time. It is recommended that NYSDEC continue with the MNA program and deploy another round of PDBs within the monitoring wells for additional sampling.

It is also recommended that NYCDEC request information regarding the specific location of BIA-MW-D2 from the former Bush Industries property owner or their environmental consultant that submitted the 2015 report to NYSDEC. This well exhibited the highest detections of TCE during the 2015 sampling event that was conducted by others. It would be prudent to locate this well and include it within the continuing MNA program or install a new monitoring well at this location.

## 1.0 BACKGROUND

Watts Architecture & Engineering (Watts), in conjunction with AECOM Technical Services Northeast, Inc. (AECOM), has been involved with the Little Valley Superfund Site (Site Code #905026) on behalf of New York State Department of Environmental Conservation (NYSDEC) since 2002. As part of the ongoing efforts to assist NYSDEC with this listed site, Watts and AECOM were directed by NYSDEC to perform three groundwater monitoring well sampling events as part of the continued Monitored Natural Attenuation (MNA) program under the prescribed Remedial Action for this site through 2019. In addition, Watts and AECOM were directed by NYSDEC to conduct groundwater sampling subsequent to the second 2018 MNA sampling event for the NYSDEC list of emerging contaminants (ECs), including per- and polyfluoroalkyl substances (PFAS) and 1,4 dioxane. This report presents the data collected from the third of three groundwater sampling events to assess the success of the MNA program called for in the 2005 Record of Decision (ROD) and also presents the compounds detected during the EC groundwater sampling event. A full assessment of the success of the MNA program will be provided at NYSDEC's request, and pending receipt of all historical data. The project area and monitoring well locations are shown on **Figure 1 – Project Location Map** found within **Attachment A**.

### 1.1 Project Background and Site Description

The Little Valley Superfund Site (Little Valley Site) is a United States Environmental Protection Agency (EPA) National Priorities List (NPL) site (EPA ID #NY0001233634) and a New York State Department of Environmental Conservation (NYSDEC) State Superfund Program Site (Site Code #905026) with a trichloroethylene (TCE) contaminated groundwater plume that extends approximately eight miles southeastward from the Village of Little Valley to the northern edge of the City of Salamanca in Cattaraugus County, New York.

In 1982, the Cattaraugus County Health Department (CCHD) and NYSDEC identified TCE within private wells in the Little Valley area. In 1992, NYSDEC installed monitoring wells and investigated sources of contamination. In June 1996, the EPA listed the Little Valley Site on the NPL and shortly after, installed treatment systems at approximately 90 private well locations. NYSDEC assumed responsibility for the operation and maintenance of the existing treatment systems and annual sampling of private wells in 2002. The monitoring data for the untreated water obtained from those Point-of-Entry Treatment (POET) systems is found in Attachment D. An EPA Remedial Investigation and Feasibility Study (RIFS) was completed in 2004. EPA signed the Record of Decision (ROD) in August 2005. The ROD called for soil excavation at the Cattaraugus Cutlery site, and monitored natural attenuation (MNA) for groundwater by Bush Industries at their property of responsibility and by EPA for the remainder of the Little Valley Superfund Site.

### 1.2 Monitored Natural Attenuation

As defined in DER-10 (NYS DEC) *“Monitored natural attenuation” or “MNA” is the process by which a natural system’s ability to attenuate contaminant(s) at a specific site is confirmed, monitored and quantified. Contaminant concentrations may attenuate in natural systems through biodegradation; sorption; volatilization; radioactive decay; chemical or biological stabilization; transformation; dispersion; dilution; or the destruction of contaminants.”*

As further described in DER-10 regarding the required aspects of a MNA study, in order to demonstrate the effectiveness of the MNA program, the monitoring efforts should collect

*“sufficient data to delineate the source of the contamination and to demonstrate to the DER [Division of Environmental Remediation] that groundwater contaminant concentrations will decrease to applicable groundwater or surface water standards through degradation, retardation, or dispersion under present site conditions, in a reasonable time frame.”*

Thus, this MNA program was designed to assess the current TCE plume, and along with the historical data, document whether declines in the TCE concentrations have, or are expected to, achieve the NYS DEC Part 703 groundwater standard of 5 µg/L. In addition data were collected to assess groundwater conditions (e.g., redox) to aid in understanding the mechanisms for any declines in TCE.

The MNA program identified six (6) current or likely past source areas within overall Little Valley Site, as described in the 2005 ROD. Those areas include:

- Cattaraugus Cutlery Area (CCA)
- Bush Industries Area (BIA)
- Great Triangle Area (GTA)
- Whig Street Area (WSA)
- North Luminite Area (NLA)
- State Street Area (SSA)

Bush Industries and the EPA continued with the MNA program through 2015, at which time each concluded their MNA monitoring efforts. In September of 2016 discussions began between EPA and NYSDEC regarding transfer of MNA responsibilities to the NYSDEC State Superfund Program and in early 2018, NYSDEC approved Watts and AECOM to commence with NYSDEC’s MNA program at the Little Valley Site.

### **1.3 Emerging Contaminants**

Effective March 3, 2017, NYSDEC filed amendments to 6 NYCRR Part 597, Hazardous Substances Identification, Release Prohibition, and Release Reporting, which adds multiple PFAS compounds to the rule. On December 18, 2018, the New York Drinking Water Quality Council (NYDWQC) proposed to the New York State Department of Health (NYSDOH) that they adopt the maximum contaminant levels (MCLs) of 10 parts per trillion (ppt) for PFAS and 1 parts per billion (ppb) for 1,4 dioxane. These proposed MCLs are significantly lower than the United States Environmental Protection Agency (USEPA) guidance limit of 70 ppt for PFAS and there is currently no guidance value for 1,4 dioxane. As a result, NYSDEC is conducting a review and testing of groundwater for all current and past remedial sites for the presence of ECs, including PFAS and 1,4 dioxane.

## 2.0 SCOPE OF SERVICES

Thirty-four (34) groundwater monitoring wells were selected by NYSDEC for inclusion within the MNA program at the Little Valley Site. The MNA program included a field investigation to identify and characterize each of the selected monitoring wells, groundwater sampling, and laboratory analysis of the samples collected from each of the selected wells. The site areas and the associated selected wells include the following:

- Cattaraugus Cutlery Area (CCA)

LVRA-CCA-MW1	LVRA-CCA-MW6	LVRA-CCA-MW10
LVRA-CCA-MW2	LVRA-CCA-MW7	LVRA-CCA-MW11D
LVRA-CCA-MW3	LVRA-CCA-MW8	LVRA-CCA-MW12
LVRA-CCA-MW4	LVRA-CCA-MW9D	LVRA-CCA-PZ20D
LVRA-CCA-MW5		
- Bush Industries Area (BIA)

LVRA-BIA-MW-D1	LVRA-BIA-MW-2	LVRA-BIA-MW-5
LVRA-BIA-MW-D2	LVRA-BIA-MW-3	LVRA-BIA-MW-6
- Great Triangle Area (GTA)

LVRA-GTA-PZ5	LVRA-GTA-PZ27	LVRA-GTA-PZ38
LVRA-GTA-PZ6D	LVRA-GTA-PZ28D	LVRA-GTA-PZ47D
LVRA-GTA-LV8	LVRA-GTA-PZ32	LVRA-GTA-PZ48
LVRA-GTA-PZ25		
- Whig Street Area (WSA)

LVRA-WSA-PZ39	LVRA-WSA-PZ45D	
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- North Luminite Area (NLA)

LVRA-NLA-PZ46	LVRA-NLA-PZ55D	
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- State Street Area (SSA)

LVRA-SSA-PZ62D		
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The collection of groundwater samples as part of the MNA sampling program involved both passive diffusion bags (PDBs) and low-flow sampling techniques. LVRA-BIA-MW-D2 could not be located. Thus, this MNA sampling event included PDB sampling techniques at thirty-three (33) monitoring wells and low-flow sampling techniques at four (4) of the thirty-three (33) monitoring wells.

The collection of groundwater samples as part of the EC sampling program included low-flow sampling techniques at six (6) of the thirty-three (33) monitoring wells, including one monitoring well at each of the previously determined Little Valley Site study areas.

The laboratory analysis schedule varied and was dependent upon the sample collection method employed at that location. A description of the field investigation, sampling methodology, and the laboratory analytical program and results is presented within **Section 3.0**.

### 3.0 FIELD INVESTIGATION, GROUNDWATER SAMPLING, AND LABORATORY ANALYSIS

LVRA-BIA-MW-D2 could still not be located after consultation with maintenance personnel from Innovative Wood Solutions, Inc., the current occupant of the former Bush Industries facility. Thus the total number of monitoring wells sampled under this MNA Interim Report remains at thirty-three (33). The PDBs that were sampled as part of this third MNA sampling event were deployed subsequent to the conclusion of the EC sampling event that occurred in the summer of 2019. MNA investigation methodologies were consistent with those employed during the first two rounds of sampling and are detailed within that associated Interim Report. Additional PDBs were not deployed at the conclusion of the third round of MNA sampling, however, the dedicated PDB suspension system that was customized to each monitoring well was left within each associated monitoring well. Low-flow sampling equipment for both the MNA sampling event and the EC sampling event was rented from Eco-Rental Solutions. EC-free equipment was utilized during the EC sampling event.

The EC sampling event was completed over three (3) days between June 11<sup>th</sup> and 14<sup>th</sup>, 2019, after approximately seven (7) months during which no PDB suspension system equipment was deployed within any of the monitoring wells. A total of six (6) groundwater samples were collected from select monitoring wells as detailed below using low-flow techniques and were submitted for the analysis of ECs, including PFAS and 1,4 dioxane. A field blank that utilized lab provided PFAS-free water was collected and submitted to the laboratory each day for the analysis of PFAS. In addition, one (1) equipment rinsate blank that utilized lab provided PFAS-free water was collected and submitted to the lab during the EC sampling event for the analysis of PFAS. All EC samples were hand delivered to Test America (TA) in Amherst, New York. TA is a NYSDEC-approved and NYS Department of Health (NYSDOH)-approved laboratory for chemical analysis.

The third MNA sampling event was completed over three (3) days between July 31<sup>st</sup> and August 2<sup>nd</sup>, 2019. A total of thirty-three (33) groundwater samples were obtained from the PDBs and were analyzed for VOCs as detailed below. A total of four (4) groundwater samples were collected by low-flow techniques and were submitted for the analysis of VOCs and the expanded parameter list of constituents described below. Three (3) trip blanks provided by the laboratory were also analyzed as part of this round of the investigation. All MNA samples were hand delivered to Test America (TA) in Amherst, New York. TA is a NYSDEC-approved and NYS Department of Health (NYSDOH)-approved laboratory for chemical analysis.

See below for the details regarding the investigation and sampling strategy employed at the various monitoring wells.

#### 3.1 MNA Passive Diffusion Bag Sampling

As was done for the first two rounds of MNA sampling events, thirty-three (33) PDBs were received from EON Products, each prefilled with ASTM Type I deionized (DI) water. Two different lengths of PDBs (18 inch and 12 inch) were used for this investigation. The 18 inch long by 1.75 inch diameter PDBs contained 350 ml of DI water and the 12 inch long by 1.75 inch diameter PDBs contained 150 ml of DI water. The 12 inch PDBs were necessary at two monitoring wells due to the limited water column present within those monitoring wells. All PDB tether suspension supplies were obtained from EON Products and were approved by EON Products for PDB sampling usage free from potential VOC cross-contamination. A spreadsheet provided by EON Products is attached within **Attachment B** that contains well

measurements obtained by Watts and provided to EON Products and the PDB characteristics for each monitoring well.

Upon retrieval of the PDB, sampling was performed immediately to avoid loss of volatile compounds. Small discharge tubes were provided by EON Products for puncturing the PDB polyethylene membrane to facilitate sampling. A small amount of water was discharged through each tube prior to sampling in order to purge and rinse each discharge tube. Subsequently, the three (3) 40-ml VOA sampling containers were filled with water from the PDB and immediately capped upon removal of all air bubbles, thus eliminating any head space. Sample containers were appropriately labeled and immediately placed on ice for sample preservation and subsequent submission to the laboratory for analysis of VOCs via EPA Method 524.2.

Water depth measurements were taken at each well during the sampling event. A table compiling the water depth measurements is included within **Appendix B**.

### 3.2 MNA Low-Flow Sampling

As recommended within the previous Interim MNA Report, one of the monitoring wells that was selected for inclusion within this third round of MNA sampling differed from the first two MNA events. The 2015 laboratory analysis of the sample collected from monitoring well WSA-PZ39 had a result of 88  $\mu\text{g/L}$  of TCE so this well was included within the program, however all of the analyses performed on the samples collected from this monitoring well subsequently in 2018 were non-detect. As a result, the inclusion of WSA-PZ39 was discontinued and the immediately adjacent deep monitoring well WSA-PZ45D was selected for inclusion within this round of sampling, based upon the detections of 2.3 ppm and 2.1 ppm. The other three (3) monitoring wells that were selected by NYSDEC for inclusion within an expanded parameter suite purging, monitoring, and sampling program for the first two rounds of MNA sampling were again selected for this second round of 2019 sampling. The four (4) monitoring wells where MNA sampling occurred utilizing low-flow sampling techniques during the third round of MNA sampling included:

- CCA-MW3;
- GTA-PZ32;
- WSA-PZ45D; and,
- BIA-MW-2.

As discussed within previous MNA reporting for this site, in addition to TCE being detected during the 2015 sampling within the monitoring wells that were selected for low-flow sampling, other monitoring wells also had TCE detections during the 2015 sampling event. A total of six (6) of the monitoring wells sampled under the 2015 program had detections above the New York State Department of Health (NYSDOH) Human Health Maximum Contaminant Level of 5  $\mu\text{g/L}$  for TCE; however, only four (4) of the six (6) wells were chosen by NYSDEC for the expanded parameter suite. CCA-MW12 (5.2  $\mu\text{g/L}$  of TCE) and GTA-PZ5 (5.6  $\mu\text{g/L}$  of TCE) were not included.

As previously mentioned, BIA-MW-D2 could not be located, so a monitoring well from the Whig Street Area where there was a detection of TCE was added to the list of monitoring wells included within the low-flow sampling for expanded parameter suite analysis instead. This well was

selected so that an additional study area of the overall Little Valley Site would be included within the low-flow sampling program.

The purging, monitoring, and sampling activities that were conducted at the four (4) monitoring wells included within the more extensive sampling program utilized the following techniques:

- Low-flow purging and sampling using a bladder pump fitted with new disposable products, including the bladder and down-well tubing;
- Pumping rates between approximately 0.1 liters per minute and 0.5 liters per minute were used, in order to ideally achieve an equivalent well recharge rate, with drawdown being 0.3 foot or less as monitored with a water level meter. While not needed, the contingency plan if the recharge rate was very low and the well was purged dry was to allow enough time to elapse until the well recharged to a sufficient level for sampling;
- The following field parameters were monitored approximately every five (5) minutes with use of a flow-through cell or separate vial for measuring;
  - volume of water purged;
  - pH;
  - oxidation reduction potential (ORP);
  - dissolved oxygen (DO);
  - specific conductivity;
  - temperature; and,
  - turbidity.
- Purging activities were continued until the field parameters indicated that the well was considered stabilized and ready for sample collection when three (3) consecutive readings fell within the following range of values:
  - 0.1 for pH;
  - 3% for specific conductance;
  - 10% for DO;
  - 10% for turbidity; and,
  - 10 mV for ORP.
- Samples of the groundwater were collected into appropriate laboratory provided containers and placed on ice within a cooler for submission to the laboratory for analysis of the following:
  - VOCs (EPA Method 524.2), samples submitted with zero headspace;
  - Total organic carbon (TOC) (EPA Method 9060);
  - Alkalinity (EPA Method 310.1), sample submitted with zero headspace;
  - Sulfate (EPA Method 300.1);
  - Sulfide (EPA Method 376.1);
  - Nitrate (EPA Method 300.1);
  - Chloride (EPA Method 300.1);
  - Ferrous Iron (EPA Method 3500Fe-D), sample was field filtered during the sampling process;
  - Ethane (EPA Method 3810);
  - Ethene (EPA Method 3810); and,
  - Methane (EPA Method 3810).
- All purge water was returned to the ground within the direct vicinity of the monitoring well from which the water was derived; and

- All dedicated PDB suspension system equipment was placed back into the monitoring well without a tethered PDB. Any future sampling PDB sampling will need to include the deployment of PDBs as part of the scope of work.

Well Development/Purging Logs for the four (4) wells associated with the low-flow MNA sampling program are included within **Attachment B**.

### 3.3 EC Low-Flow Sampling

One accessible monitoring well from within each of the six recognized study areas throughout the Little Valley Site with the highest TCE result from the most recent dataset within each area was selected for inclusion within the EC low-flow purging, monitoring, and sampling program. The NYSDEC approved for inclusion the following six (6) monitoring wells:

- CCA-MW10;
- GTA-PZ32;
- NLA-PZ-55D;
- WSA-PZ45D;
- SSA-PZ-62D; and,
- BIA-MW-6.

The purging, monitoring, and sampling activities that were conducted at the six (6) monitoring wells included within the EC sampling program utilized the following techniques:

- Low-flow purging and sampling using a bladder pump fitted with new disposable PFAS-free products, including the bladder and down-well tubing;
- Pumping rates between approximately 0.1 liters per minute and 0.5 liters per minute were used, in order to ideally achieve an equivalent well recharge rate, with drawdown being 0.3 foot or less as monitored with a water level meter. While not needed, the contingency plan if the recharge rate was very low and the well was purged dry was to allow enough time to elapse until the well recharged to a sufficient level for sampling;
- The following field parameters were monitored approximately every five (5) to 30 (thirty) minutes (depending on the total volume of water to be purged from the well) with use of a flow-through cell or separate vial for measuring:
  - volume of water purged;
  - pH;
  - oxidation reduction potential (ORP);
  - dissolved oxygen (DO);
  - specific conductivity;
  - temperature; and,
  - turbidity.
- Purging activities were continued until at least 3 (three) well volumes were purged and the field parameters indicated that the well was considered stabilized and ready for sample collection when three (3) consecutive readings fell within the following range of values:
  - 0.1 for pH;
  - 3% for specific conductance;
  - 10% for DO;
  - 10% for turbidity; and,
  - 10 mV for ORP.

- Samples of the groundwater were collected into appropriate laboratory provided containers and placed on ice within a cooler for submission to the laboratory for analysis of the following:
  - PFAS (EPA Method 537 modified);
  - 1,4 Dioxane (EPA Method 8270D SIM ID - SVOC); and,
- All purge water was returned to the ground within the direct vicinity of the monitoring well from which the water was derived subsequent to the collection of samples.

Well Development/Purging Logs for the six (6) wells associated with the low-flow EC sampling program are included within **Attachment B**.

## 4.0 ANALYTICAL RESULTS

The VOC, General Chemistry, and EC analytical results obtained during the June 2019 EC sampling event and July/August 2019 MNA sampling event are detailed within the following sub-sections.

### 4.1 Volatiles

Of the thirty-three (33) groundwater samples obtained using PDB sampling techniques, the laboratory detected TCE or the associated breakdown (a.k.a. daughter) compounds in twenty-seven (27) of the samples. Of the four (4) groundwater samples collected using low-flow sampling techniques and submitted for the analysis of VOCs and the expanded parameter suite, the laboratory detected TCE or the associated daughter compounds in all four (4) of the groundwater samples. The results of the VOC analyses were relatively consistent for TCE and its daughter compounds when comparing the results where both sampling techniques were used in the same monitoring well. The differences in values within the analytical concentrations were minimal, often only a few parts-per-billion.

The analytical results associated with TCE and the associated breakdown compounds are summarized within **Table 1a - MNA Groundwater Samples, TCE Results & Daughter Compound Hits Only Results for PDB and Low-Flow Sampling for Cattaraugus Cutlery Area (CCA) & Great Triangle Area (GTA)**, **Table 1b - MNA Groundwater Samples, TCE Results & Daughter Compound Hits Only Results for PDB and Low-Flow Sampling for Bush Industries Area (BIA)**, and **Table 1c - MNA Groundwater Samples, TCE Results & Daughter Compound Hits Only Results for PDB and Low-Flow Sampling for Whig Street Area (WSA), North Luminite Area (NLA), & State Street Area (SSA)**, found at the end of this section. The laboratory analytical reports can be found within **Attachment C**.

This report presents data from four sampling events for the monitoring wells selected for the MNA program; sampling by others in 2015, followed three years later with sampling by Watts/AECOM in April/May of 2018, six months later by Watts/AECOM in November of 2018, and about nine months later by Watts/AEOM in July/August 2019. In addition, data were provided for the Bush Industries area from the period covering 1999 to 2006. It is expected that the concentrations of a volatile organic such as TCE will slowly decline via natural attenuation (including biological degradation, abiotic degradation, adsorption, volatilization and dispersion), with the speed of this decline depending on site conditions and the mechanisms which cause the decline. The longer the time period covered by monitoring the more noticeable any decline should be. As was reported in the previous Interim Report and is again evident within this sampling event, the shorter period of time between the events would not be expected to reveal large, consistent, and significant differences. More obvious differences would be expected to be seen in the four years between the 2015 and the 2019 sampling data. Even more so, the 16 to 18 year period for the data shown in Table 1b at the Bush Industries Area, should provide even more appreciable and noted changes.

Between the November 2018 and July/August 2019 sample events, some monitoring wells exhibited slight increased TCE concentrations, some monitoring wells had relatively unchanged TCE concentrations, and some monitoring wells had slightly decreased concentrations of TCE. No overall trend could be identified from the results of this third MNA sampling event from the previous event completed approximately nine months earlier. TCE concentrations are lower throughout the entire Little Valley Site when compared to 2015 at all but four monitoring wells,

and when compared to older data for the Bush Industries Area. The general decreasing trend of these monitoring well results are consistent with the data from the POET systems, in which all residential wells show declines, with an average drop of 60% since 2002. Those declining concentrations in the POET results fit an exponential trend line which is characteristic of MNA declines.

There were new detections reported during this sampling event of tetrachloroethene at thirteen (13) monitoring wells at which there were no previous detections of this compound.

Daughter compounds of TCE including cis-1,2-dichloroethylene, trans-1,2-dichloroethylene, 1,1-dichloroethene, and vinyl chloride were detected within some of the samples at varying concentrations. When comparing these results to the available historical data, no consistent trends were identified that would present clear evidence of natural biological degradation, other than at the Bush Industries Area (discussed below).

Benzene was detected at estimated levels in BIA-MW-2. The details are footnoted within Tables 1a, 1b, and 1c and further information can be found within the attached laboratory analytical reports.

### Acetone

Anomalies related to the detection of acetone within all of the samples collected using PDB sampling techniques and very little to none detected in the samples collected using low-flow sampling techniques from the same monitoring wells. This is consistent with what was detailed within both of the previous Interim Reports completed for the two rounds of sampling in 2018. Four (4) of the monitoring wells had both PDB and low flow sampling techniques conducted. At these four (4) monitoring wells, acetone was identified at denotive levels in all of the PDB samples, while none was detected in two (2) of the low flow samples and the detections of acetone within the other two (2) low flow samples compared to the PDB samples differed significantly (1.2 ppb estimated (J) compared to 22 ppb and 1.6 ppb estimated (J) compared to 48 ppb). Both the PDB and low-flow samples from the four (4) monitoring wells all had good correlation and excellent reproducibility for the site related contaminants. It should be noted that acetone is not known to be associated with the Little Valley Site as a contaminant of concern. The acetone concentrations also did not correlate to the concentrations of the main site related contaminants (TCE and breakdown products). If acetone was a site related contaminant, one would expect the concentrations to vary in a similar fashion as the TCE concentrations (e.g., the up-gradient wells should be clean, with higher concentrations down-gradient of a source).

The PDB samples had acetone concentrations ranging from 18 to 78  $\mu\text{g/L}$ . The reporting limit for acetone for all of the PDB samples was 5  $\mu\text{g/L}$ , thus the detection concentrations are notable. Conversely, the two (2) low flow samples in which acetone was detected at relatively lower concentrations of 1.2 and 1.6, both estimated quantities because of the reporting limit for acetone being 5  $\mu\text{g/L}$ . Low-level acetone detections are often attributable as a lab contaminant, as acetone is utilized within the laboratory environment as a cleaning chemical.

None of the pre-filled and sealed trip blanks provided by the laboratory had a detectable

level of acetone. The on-site generated field blank sample which utilized water provided by EON Products had a detection of acetone at 20 µg/L. The field/trip blank utilized VOC-free water from within plastic bags that was provided by the EON Products using the same lot of ASTM Type I DI lab-grade water that they utilized when pre-filling the PDBs.

While EON Products disputes there is an association with PDBs and acetone detections, this and the two previous sampling efforts and data packages clearly suggests evidence of a correlation between some portion of the overall PDB process and acetone as a lab or process related contaminant (e.g. protective mesh sleeve, zip ties, small discharge sampling tubes that puncture the PDB, etc.).

## 4.2 General Chemistry

The general chemistry results are presented in **Table 2 - MNA Groundwater Samples, Dissolved Gases and General Chemistry Results for Low-Flow Sampling**, found at the end of this section. These results are fairly consistent with the previous rounds of sampling and the 2015 data that was provided by NYSDEC. However, one notable difference is the chloride levels at WSA-PZ45D decreased significantly to 38.2 mg/L from 410 mg/L in 2015.

At the CCA, GTA, and WSA areas, the results of the general chemistry indicate oxidizing conditions in the groundwater, which suggests that biologically driven reductive dechlorination (e.g. converting TCE to less chlorinated compounds) is not occurring, consistent with the relative lack of daughter products at these locations. In this case the primary drivers of natural attenuation would be dilution and dispersion.

The presence of methane and the lower concentration of nitrate at BIA site suggests that reducing conditions may be present, which would be conducive to dechlorination. This would be consistent with the higher concentration of daughter products seen at this location in comparison to the other sites.

## 4.3 Emerging Contaminants

The EC results are presented in **Table 3 - Emerging Contaminant Groundwater Samples Hits Only Results**, found at the end of this section. All of the EC analytical results were either non-detect or below the NYDWQC proposed MCLs to NYSDOH of 10 ppt for PFAS and 1 ppb for 1, 4 dioxane. The laboratory analytical reports can be found within **Attachment C**.

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**TABLE 1a - MNA Groundwater Samples, TCE Results & Daughter Compound Hits Only Results for PDB and Low-Flow Sampling**

**Cattaraugus Cutlery Area (CCA)**

Well ID	Analyte	Analytical Results (ug/L)			
		Year			
		2019	2018/R2 *	2018/R1 *	2015 **
CCA-MW1	Trichloroethene	2.1	2.0	1.9	3.6
CCA-MW2	Trichloroethene	0.73	0.76	0.68	2.8
CCA-MW3	Trichloroethene	5.2 (9.6)	4.6 (4.7)	3.3 (3.9)	33
	Tetrachloroethene	ND (0.25 J)	ND (ND)	ND (ND)	0.51
	cis-1,2-Dichloroethene	ND (ND)	0.11 J (ND)	ND (ND)	0.62
CCA-MW4	Trichloroethene	ND	ND	ND	ND
	Tetrachloroethene	0.80	ND	ND	ND
CCA-MW5	Trichloroethene	6.4	6.6	3.8	1.4
CCA-MW6	Trichloroethene	ND	ND	ND	ND
	Tetrachloroethene	0.80	ND	ND	ND
CCA-MW7	Trichloroethene	ND	ND	ND	ND
	Tetrachloroethene	0.61	ND	ND	ND
CCA-MW8	Trichloroethene	ND	ND	ND	ND
CCA-MW9D	Trichloroethene	0.71	0.87	0.81	1.3
CCA-MW10	Trichloroethene	10	17	8.3	1.4
	Tetrachloroethene	0.44 J	0.65	0.31 J	ND
	cis-1,2-Dichloroethene	ND	0.25 J	ND	ND
CCA-MW11D	Trichloroethene	ND	ND	ND	ND
CCA-MW12	Trichloroethene	2.1	3.6	3.2	5.2
CCA-PZ20D	Trichloroethene	ND	ND	ND	ND

**Great Triangle Area (GTA)**

Well ID	Analyte	Analytical Results (ug/L)			
		Year			
		2019	2018/R2 *	2018/R1 *	2015 **
GTA-PZ5	Trichloroethene	3.0	2.6	3.0	5.6
	Chloroform	ND	0.21 J	ND	ND
	Tetrachloroethene	0.32 J	ND	ND	ND
GTA-LV8	Trichloroethene	ND	ND	ND	ND
GTA-PZ25	Trichloroethene	0.68	0.60	1.1	3.5
GTA-PZ26D	Trichloroethene	0.34 J	3.1	3.3	4.2
	Tetrachloroethene	4.4	ND	ND	ND
GTA-PZ27	Trichloroethene	0.37 J	0.43 J	0.41 J	0.53
GTA-PZ28D	Trichloroethene	0.46 J	0.48 J	0.52	0.79
	Tetrachloroethene	0.31 J	ND	ND	ND
GTA-PZ32	Trichloroethene	4.9 (4.3)	5.5 (5.2)	5.8 (5.4)	5.9
	Tetrachloroethene	0.67 (ND)	0.20 J (ND)	ND (ND)	ND
	cis-1,2-Dichloroethene	ND (ND)	0.21 J (0.15 J)	0.40 J (0.17 J)	ND
GTA-PZ38	Trichloroethene	0.47 J	0.49 J	0.49 J	0.83
	Tetrachloroethene	0.29 J	ND	ND	ND
GTA-PZ47D	Trichloroethene	2.1	2.3	2.2	3.2
	Tetrachloroethene	2.9	ND	ND	ND
GTA-PZ48	Trichloroethene	1.5	1.7	1.5	2.6
	Tetrachloroethene	0.28 J	ND	ND	ND

Note: Only trichloroethene (TCE) and its associated daughter (break down) compounds are listed within the tables. The daughter compounds are shown in the tables only if detected within the sample. Other notable detections (excluding methylene chloride and acetone) for this round only include: BIA-MW-2 - Benzene = 0.16 J (0.15 J).

J - Estimated value determined by laboratory. ND - Compound was not detected within the sample above the laboratory Method Detection Limit (0.5 ug/L).

\* - Samples collected for NYSDEC by Watts via passive diffusion bags (PDBs) except where result is noted within parenthesis indicating that the sample was collected via low-flow techniques.

\*\* - Samples collected by others and analytical results were provided by NYSDEC.

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**TABLE 1b - MNA Groundwater Samples, TCE Results & Daughter Compound Hits Only Results for PDB and Low-Flow Sampling**

**Bush Industries Area (BIA)**

Well ID	Analyte	Analytical Results (ug/L)				Year
		2019	2018/R2 *	2018/R1 *	2015 **	
<b>BIA-MW-D1</b>						1/10/2001
	Trichloroethene	9.9	6.0	6.6	3.9	18
	cis-1,2-Dichloroethene	6.0	2.3	3.2	ND	8.0
<b>BIA-MW-D2</b>						1/10/2001
	Trichloroethene	Well not located.	Well not located.	Well not located.	88	140
	cis-1,2-Dichloroethene	Well not located.	Well not located.	Well not located.	9.9	36
<b>BIA-MW-2</b>						5/5/1999
	Trichloroethene	32 (34)	35 (24)	31 (32)	42	230
	1,1-Dichloroethene	0.31 J (0.27J)	0.32 J (0.22 J)	0.31 J (0.30 J)	0.35 J	1.0 J
	cis-1,2-Dichloroethene	14 (13)	13 (10)	16 (14)	20	ND
	trans-1,2-Dichloroethene	0.14 J (ND)	ND (0.096 J)	ND (0.14 J)	ND	ND
	Vinyl chloride	0.62 (0.46 J)	ND	ND	ND	ND
<b>BIA-MW-3</b>						1/9/2001
	Trichloroethene	6.0	3.1	2.6	1.8	8.0
	cis-1,2-Dichloroethene	3.0	0.86	2.0	ND	3.0
<b>BIA-MW-5</b>						10/30/2006
	Trichloroethene	ND	0.22 J	ND	ND	ND
	cis-1,2-Dichloroethene	ND	0.26 J	ND	ND	ND
<b>BIA-MW-6</b>						1/10/2001
	Trichloroethene	100 D	180 HD	75	1.2	37
	1,1-Dichloroethene	0.53	1.2	0.38 J	ND	ND
	cis-1,2-Dichloroethene	110 D	110 HD	74	4.8	44
	trans-1,2-Dichloroethene	0.52	1.1	0.41 J	ND	ND
	Vinyl chloride	1.2	2.4	ND	ND	ND

Note: Only trichloroethene (TCE) and its associated daughter (break down) compounds are listed within the tables. The daughter compounds are shown in the tables only if detected within the sample. Other notable detections (excluding methylene chloride and acetone) for this round only include: BIA-MW-2 - Benzene = 0.16 J (0.15 J).

J - Estimated value determined by laboratory. ND - Compound was not detected within the sample above the laboratory Method Detection Limit (0.5 ug/L).

H - Sample was prepped or analyzed beyond the specified holding time. D - sample was diluted by the laboratory.

\* - Samples collected for NYSDEC by Watts via passive diffusion bags (PDBs) except where result is noted within parenthesis indicating that the sample was collected via low-flow techniques.

\*\* - Samples collected by others and analytical results were provided by NYSDEC.

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TABLE 1c - MNA Groundwater Samples, TCE Results & Daughter Compound Hits Only Results  
 for PDB and Low-Flow Sampling

**Whig Street Area (WSA)**

		Analytical Results (ug/L)			
Well ID	Year				
Analyte	2019	2018/R2 *	2018/R1 *	2015 **	
<b>WSA-PZ39</b>					
Trichloroethene	ND (NS)	ND (ND)	ND (ND)	4.7	
Tetrachloroethene	0.21 J (NS)	ND (ND)	ND (ND)	ND	
<b>WSA-PZ45D</b>					
Trichloroethene	2.5 (2.4)	2.1 (NS)	2.3 (NS)	ND	
Tetrachloroethene	1.9 (ND)	ND (NS)	ND (NS)	ND	

**North Luminite Area (NLA)**

		Analytical Results (ug/L)			
Well ID	Year				
Analyte	2019	2018/R2 *	2018/R1 *	2015 **	
<b>NLA-PZ46</b>					
Trichloroethene	ND	ND	ND	ND	
<b>NLA-PZ55D</b>					
Trichloroethene	2.5	2.5	2.7	3.5	
Tetrachloroethene	0.39 J	ND	ND	ND	

**State Street Area (SSA)**

		Analytical Results (ug/L)			
Well ID	Year				
Analyte	2019	2018/R2 *	2018/R1 *	2015 **	
<b>SSA-PZ62D</b>					
Trichloroethene	2.4	2.4	2.5	3.6	
Tetrachloroethene	0.51	ND	ND	ND	

Note: Only trichloroethene (TCE) and its associated daughter (break down) compounds are listed within the tables. The daughter compounds are shown in the tables only if detected within the sample. Other notable detections (excluding methylene chloride and acetone) for this round only include: BIA-MW-2 - Benzene = 0.16 J (0.15 J).

J - Estimated value determined by laboratory. ND - Compound was not detected within the sample above the laboratory Method Detection Limit (0.5 ug/L). NS - Not sampled.

\* - Samples collected for NYSDEC by Watts via passive diffusion bags (PDBs) except where result is noted within parenthesis indicating that the sample was collected via low-flow techniques.

\*\* - Samples collected by others and analytical results were provided by NYSDEC.

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 For Cattaraugus Cutlery Area (CCA), Bush Industries Area (BIA),  
 Great Triangle Area (GTA), & Whig Street Area (WSA)  
 TABLE 2 - MNA Groundwater Samples, Dissolved Gasses and General Chemistry Results for Low-Flow Sampling

Well ID	CCA-MW3				BIA-MW-2				GTA-PZ32				WSA-PZ39				WSA-PZ45D			
	Year				Year				Year				Year				Year			
Analyte	2019	2018/R2 *	2018/R1 *	2015 **	2019	2018/R2 *	2018/R1 *	2015 **	2019	2018/R2 *	2018/R1 *	2015 **	2019	2018/R2 *	2018/R1 *	2015 **	2019	2018/R2 *	2018/R1 *	2015 **
Dissolved Gasses (ug/L)																				
Methane	ND	ND	ND	ND	55	27.0	26.0	0.11	ND	ND	ND	ND	NS	ND	ND	46.9	ND	NS	NS	ND
Ethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	NS	NS	ND
Ethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	NS	NS	ND
General Chemistry (mg/L)																				
Chloride	22.5	30.1	21.0	25.0	14.9	14.3	13.9	15.7	12.7	14.2	11.3	8.9	NS	8.1	484.0	41.0	38.2	NS	NS	410
Sulfate	13.4	24.4	14.3	14.0	16.1	7.9	16.5	14.2	11.0	15.4	12.4	12.0	NS	20.2	16.4	8.1	9.0	NS	NS	11
Nitrate as N	0.70 H	0.55	0.55	0.62	0.034 JH	ND	0.07	.024 J	0.48	0.49	0.49	0.45	NS	2.5	1.6	0.93	0.95 H	NS	NS	3.2
Nitrate Nitrite as N	0.70	0.55	0.55	NA	0.034 J	ND	0.07	NA	0.48	0.49	0.49	NA	NS	2.5	1.6	NA	0.95	NS	NS	NA
Nitrite as N	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	NS	ND	ND	NA	ND	NS	NS	NA
Alkalinity, Total	177	165 F1	161	170	222	203	211	203	110	117	118	120	NS	142	96.5	130	131	NS	NS	130
Alkalinity, Bicarbonate	177	165	161	NA	222	203	211	NA	110	117	118	NA	NS	142	96.5	NA	131	NS	NS	NA
Alkalinity, Carbonate	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	NS	ND	ND	NA	ND	NS	NS	NA
Hydroxide Alkalinity	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	NS	ND	ND	NA	ND	NS	NS	NA
Ferrous Iron	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	NS	ND	ND	NA	ND	NS	NS	NA
Sulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	NS	NS	ND
Total Organic Carbon	0.44 J	ND	ND	ND	1.1	ND	1.1 B	ND	ND	ND	ND	ND	NS	1.9	0.75 J B	ND	ND	NS	NS	1.4
Final Field Parameters																				
Temperature (°C)	9.8	8.0	10.7	NP	13.2	9.6	12.1	11.8	13.8	8.5	13.4	NP	NS	11.5	7.9	NP	11.8	NS	NS	NP
Conductivity (ms/cm)	0.380	0.398	0.322	NP	0.430	0.451	0.414	0.444	0.263	0.293	0.257	NP	NS	1.307	1.354	NP	0.368	NS	NS	NP
pH	7.64	7.65	7.79	NP	6.91	7.27	7.17	7.04	7.85	7.85	8.12	NP	NS	6.4	6.61	NP	7.41	NS	NS	NP
Dissolved Oxygen (%)	41.4	4.1	44.8	NP	12.1	61.5	19.1	0.55 mg/L	72.1	189.8	74.9	NP	NS	34.4	56.4	NP	44.9	NS	NS	NP
ORP (mV)	125.3	51.4	79.7	NP	184.4	129.6	73.0	167	186.7	64.0	74.1	NP	NS	193.7	107.8	NP	187.2	NS	NS	NP
Turbidity (NTU)	17.9	122.2	46.3	NP	4.92	9.6	11.1	6.2 FTU	22	90	232.9	NP	NS	0.4	20	NP	32.66	NS	NS	NP

B - Compound was detected within the sample and the blank.  
 J - Estimated value determined by laboratory.  
 H - Sample was prepped or analyzed beyond the specified holding time.  
 F1 - MS and/or MSD Recovery is outside acceptance limits.  
 \* - Samples collected for NYSDEC by Watts utilizing low-flow sampling techniques.  
 \*\* - Samples collected by others and analytical results were provided by NYSDEC.  
 ND - Compound was not detected within the sample above the laboratory Method Detection Limit.  
 NA - Compound was not analyzed for.  
 NS - Not sampled.  
 NP - The historical information was not provided.

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**TABLE 3 - Emerging Contaminant (PFAS & 1,4 Dioxane) Groundwater Samples**  
**Hits Only Results**

Sample ID	Analyte	Analytical Results (ng/L)
WSA-PZ-45D-061119	No Analytes Detected	ND
CCA-MW-10-061219	Perfluorooctanesulfonic acid (PFOS)	0.84 J
B1A-MW-6-061219	Perfluoropentanoic acid (PFPeA)	1.8
	Perfluorooctanoic acid (PFOA)	1.6
	Perfluorooctanesulfonic acid (PFOS)	2.3
NLA-PZ-55D-061319	No Analytes Detected	ND
SSA-PZ-62D-061419	No Analytes Detected	ND
GTA-PZ-32-061419	No Analytes Detected	ND
FIELD BLANK-061119	Perfluorooctanesulfonic acid (PFOS)	1.5 J
FIELD BLANK-061219	No Analytes Detected	ND
FIELD BLANK-061319	No Analytes Detected	ND
FIELD BLANK - 061419	Perfluorooctanoic acid (PFOA)	0.58 J B
	Perfluorooctanesulfonic acid (PFOS)	0.50 J
RINSATE BLANK-061219	No Analytes Detected	ND
DUP-061219 (Collected from CCA-MW-10)	Perfluorooctanoic acid (PFOA)	0.55 J
	Perfluorooctanesulfonic acid (PFOS)	0.88 J

J - Estimated value determined by laboratory.

ND - Compound was not detected above the laboratory Method Detection Limit.

B - Compound was detected within the sample and the blank.

1,4 Dioxane units are reported by the laboratory in ug/L.

1,4 Dioxane was not detected by the laboratory within any of the submitted samples.

PFAS units are reported by the laboratory in ng/L.

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

The results of the EC analyses were all either non-detect or were below the currently proposed New York State MCLs. As a result, no further EC sampling at the MNA wells is recommended at this time.

The results of the VOC analyses were relatively consistent for TCE and its daughter compounds when comparing the results where both sampling techniques were used within the same monitoring well, confirming that the two methods are comparable.

With the exception of one monitoring well at the Bush Industries Site where TCE detections significantly increased since 2015 (however the levels have decreased over the past nine months), and one monitoring well at the Cattaraugus Cutlery Area where TCE detections increased slightly since 2015 (however the levels have decreased over the past nine months), most of the TCE detections throughout the Little Valley Site show attenuation when compared to the historical analytical results. Evidence of the natural attenuation of TCE throughout the Little Valley Site is supported by the annual POET system sampling data from over eighty (80) residential wells. The POET sampling data can be found as **Attachment D** and is provided to NYSDEC on an annual basis. A full assessment of MNA for the project may be conducted following the completion of additional rounds of data collection, and contingent upon receipt of historical data from the NYSDEC or third parties

Although the compound tetrachloroethene was newly detected at thirteen (13) monitoring wells, the detections were for the most part estimated concentrations that were very low level.

Daughter breakdown compounds were detected within some of the results at varying concentrations. The lack of consistent detection of daughter products at most of the sites suggests a lack of significant biologically-driven dechlorination, with natural attenuation being driven primarily by dilution and dispersion. However such compounds were seen at the BIA site and, along with general chemistry, suggest possible active dechlorination in that area.

For the reasons identified in **Section 4.0**, the acetone detected within the PDB samples is believed to be a process related contaminant and not related to the actual site conditions.

None of the thirty-three (33) wells that were sampled under this Interim Report are recommended for removal from the MNA program at this time. We recommend that NYSDEC continue with the MNA program and deploy additional PDBs in preparation for a future MNA sampling event. In addition, we recommend continuing the low-flow expanded parameter suite sampling during the next MNA field event as was completed during this field event, specifically continuing with filtering dissolved iron in the field within 15 minutes of collection, with a 24 hour holding time after collection and in addition, the samples for alkalinity be collected in such a way as to eliminate headspace.

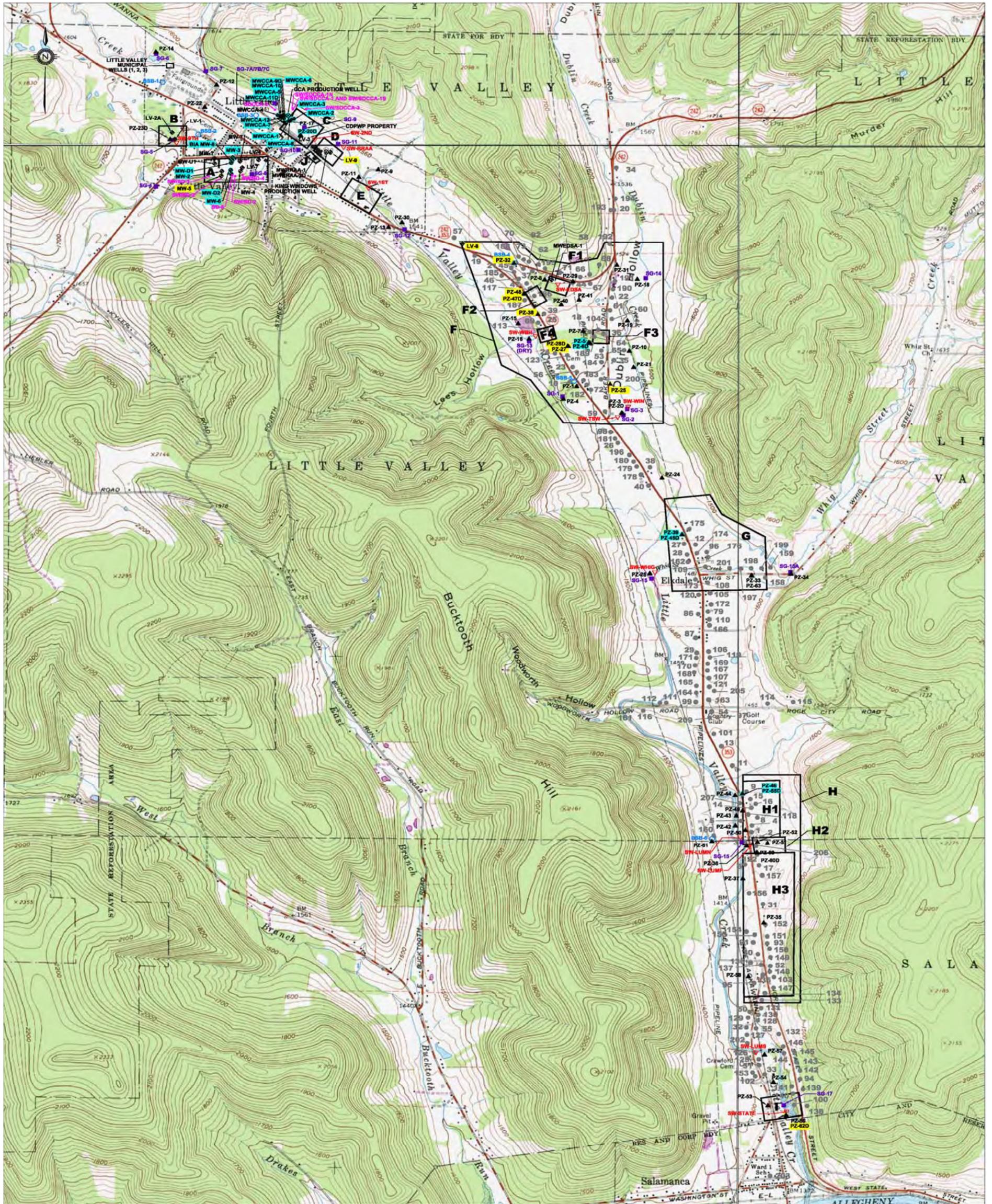
We recommend that NYSDEC request information regarding the specific location of BIA-MW-D2 from the Bush Industries property owner or their environmental consultant that submitted the 2015 report to NYSDEC. As previously discussed, this well could not be located utilizing the rudimentary map included within the 2015 Bush Industries MNA Final Report provided by NYSDEC, nor after onsite consultation with maintenance personnel from the current occupant of the former Bush Industries facility. BIA-MW-D2 exhibited the highest detections of TCE during the 2015 sampling event that was conducted by others. It would be prudent to include this well within the continuing MNA program. If this well cannot be located, it is recommended to install another monitoring well at this location and include it within the future MNA program.

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# ATTACHMENT A

Project Location Map

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**LEGEND:**

**POTENTIAL SOURCE AREAS:**

- A** BUSH INDUSTRIES AREA
- B** NINTH STREET LANDFILL AREA
- C** CATTARAUGUS CUTLERY AREA
- D** KING WINDOWS (SECOND STREET) AREA
- E** FIRST STREET AREA
- F** GREAT TRIANGLE AREA  
INCLUDES:  
**F1** ENVIROTECH DRUM STORAGE  
**F2** WESTERN BURNT HOUSE  
**F3** WINSHIP CIRCLE/BAKER ROAD  
**F4** TRIANGLE SOUTHWEST
- G** WHIG STREET AREA
- H** LUMINITE AREA  
INCLUDES:  
**H1** NORTH LUMINITE  
**H2** LUMINITE PLANT AREA  
**H3** SOUTH LUMINITE
- I** STATE STREET AREA
- J** RAILROAD AVENUE AREA

- CDPWP CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS PROPERTY
- MONITORING WELL
- PIEZOMETER - PHASE I, 1997
- PRODUCTION WELL (APPROXIMATE LOCATION)
- RESIDENTIAL WELL (APPROXIMATE LOCATION)
- RESIDENTIAL WELL IDENTIFICATION NUMBERS, AS SHOWN ON TABLES A-1 AND A-2 IN APPENDIX A.
- BACKGROUND SOIL SAMPLE LOCATION (2000)
- STREAM GAUGE
- SURFACE WATER SAMPLE LOCATION (2003)
- SURFACE WATER AND/OR SEDIMENT SAMPLE LOCATION (1998, 2000/2001)
- INDICATES PRIMARY MNA MONITORING WELLS/PIEZOMETERS TO BE SAMPLED
- INDICATES ALTERNATE MNA MONITORING WELLS/PIEZOMETERS

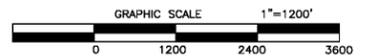
**NOTES:**

- 1) LOCATIONS FOR SC-13, SC-14, SC-15A, SC-17 AND BSB-6 ARE APPROXIMATE.
- 2) LOCATIONS FOR THE 2003 SURFACE WATER SAMPLES ARE APPROXIMATE.
- 3) PRODUCTION WELL LOCATIONS ARE APPROXIMATE.
- 4) RESIDENTIAL SAMPLING LOCATIONS ARE APPROXIMATE.

**SOURCES:**  
 1) BASE MAP ADAPTED FROM U.S.G.S. LITTLE VALLEY, ELICOTTVILLE, SALAMANCA, AND CATTARAUGUS NEW YORK QUADRANGLES, 7.5 MINUTE SERIES (TOPOGRAPHIC).  
 2) LOCATION SURVEY FOR MONITORING WELLS, STREAM GAUGES AND PIEZOMETERS WAS PERFORMED BY ENVIRONMENTAL RESEARCH, INC. (OCTOBER '97 THROUGH DECEMBER '97).  
 3) U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 2, RESPONSE ACTION CONTRACT QUALITY ASSURANCE PROJECT PLAN, ADDENDUM FOR REMEDIAL ACTION OF MONITORED NATURAL ATTENUATION AT THE LITTLE VALLEY SUPERFUND SITE, TETRA TECH EC, INC., SEPTEMBER 2006.



APPROX. QUADRANGLE LOCATIONS



**FIGURE 1 – PROJECT LOCATION MAP**

Monitored Natural Attenuation (MNA) Program  
 Little Valley Superfund Site  
 NYSDEC Site Code 905026  
 Cattaraugus County, New York

Not to Scale

September 2019



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## ATTACHMENT B

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Monitoring Well/PDB Characteristics Spreadsheet, Water Depths, and Well Purge Logs

Co. Name	AECOM				Site Name	Little Valley Site				Blank T1-130	1												
Co. Location	Latham, New York				Site Location	Little Valley, New York																	
Contact Name	Matthew E. Holquist (Watts A&E)				Your PO#	9134																	
EON Project #	P18046 R2				Federal Site? Y/N	N	Requested Receipt Date	3/20/2018															
<b>Sampler Location Details -Type or Paste the Information Below</b>																							
More Info:					*IS MEASUREMENT REFERENCE POINT =TOP OF CASING ?	Y	Feet or Meters ?	Feet	Type	Select													
on these wells we typically recommend that the sampler be 2/10' below water interface, if we had used 18" the top of the sampler will be out of the water, so we substituted 12" samplers				IS PLACEMENT DEPTH MEASURED TO THE "TOP" OR "MID"-POINT OF SAMPLER, OR CENTER-"C" OF THE SAMPLE ZONE				C	Bottom of Screen = Well Depth?	Yes	Tether Type	Poly 3/16											
not enough water for sampler. Using 18" per customer request																							
									Cap Type	Tcap/Ring													
				ENTER THE PLACEMENT DEPTH FOR EACH SAMPLER IN THE CELLS BELOW						Enter # of ft to place weight above well bottom if needed													
				<p style="text-align: center;"> <span style="color: red;">—————→</span> Shallowest  Deepest </p>																			
All Measurements must be Referenced to Top of Casing								EON Can Assist with the Entries Below		Optional	Sampler Check												
Well I.D.	Well Depth*	Well Dia	Depth to Water	Top of Screen	Depth* S-1	Depth* S-2	Depth* S-3	Depth* S-4	Depth* S-5	Depth* S-6	Depth* S-7	Sampler Type	# of Samplers	Weight Type	Reel Type	Add HS TOP WEIGHT	Approximate Sampler Volume	Top of Screen or Water Column	Mid Screen or Water Column	Bottom of Sampler When Installed	TOP of Sampler When Installed	Midpoint of Sample	Top of Sample Zone (HydraSleeve)
Example	60	2	30	50	57	52						1.7x18DS	2	1.5 Std	H-Frame	1= Wgt	350ml						
CCA-MW2	41.60	4.0	26.60	31.6	36.6							1.7x18DS	1	1.5 Std	H-Frame		350ml	31.6	36.6	37.4	35.9	36.6	
CCA-MW3	38.60	4	29.71	28.6	33.6							1.7x18DS	1	1.5 Std	H-Frame		350ml	29.7	34.2	34.4	32.9	33.6	
CCA-MW4	45.67	4	29.54	35.67	40.7							1.7x18DS	1	1.5 Std	H-Frame		350ml	35.7	40.7	41.4	39.9	40.7	
CCA-MW5	45.00	4	28.95	35	40.0							1.7x18DS	1	1.5 Std	H-Frame		350ml	35.0	40.0	40.8	39.3	40.0	
CCA-MW6	45.42	4	27.92	35.42	40.4							1.7x18DS	1	1.5 Std	H-Frame		350ml	35.4	40.4	41.2	39.7	40.4	
CCA-MW7	46.45	4	28.32	36.45	41.5							1.7x18DS	1	1.5 Std	H-Frame		350ml	36.5	41.5	42.2	40.7	41.5	
CCA-MW8	89.29	4	29.20	79.29	84.3							1.7x18DS	1	1.5 Std	H-Frame		350ml	79.3	84.3	85.0	83.5	84.3	
CCA-MW9D	68.65	4	27.81	58.65	63.7							1.7x18DS	1	1.5 Std	H-Frame		350ml	58.7	63.7	64.4	62.9	63.7	
CCA-MW10	43.7	4	27.9	23.73	33.7							1.7x18DS	1	1.5 Std	H-Frame		350ml	27.9	35.8	34.5	33.0	33.7	
CCA-MW11D	68.7	4	29.6	58.65	63.7							1.7x18DS	1	1.5 Std	H-Frame		350ml	58.7	63.7	64.4	62.9	63.7	
CCA-MW12	44.3	4	29.0	24.33	34.3							1.7x18DS	1	1.5 Std	H-Frame		350ml	29.0	36.7	35.1	33.6	34.3	
CCA-PZ20D	81.8	2	31.3	71.78	76.8							1.7x18DS	1	1.5 Std	H-Frame		350ml	71.8	76.8	77.5	76.0	76.8	
GTA-LV8	39.7	2	26.1	29.67	34.7							1.7x18DS	1	1.5 Std	H-Frame		350ml	29.7	34.7	35.4	33.9	34.7	
GTA-PZ32	86.7	2	78.4	76.7	81.7							1.7x18DS	1	1.5 Std	H-Frame		350ml	78.4	82.6	82.4	80.9	81.7	
GTA-PZ47D	91.5	2	48.0	81.5	86.5							1.7x18DS	1	1.5 Std	H-Frame		350ml	81.5	86.5	87.3	85.8	86.5	
GTA-PZ48	67.8	2	49.7	57.79	62.8							1.7x18DS	1	1.5 Std	H-Frame		350ml	57.8	62.8	63.5	62.0	62.8	
GTA-PZ38	66.6	2	48.5	56.58	61.6							1.7x18DS	1	1.5 Std	H-Frame		350ml	56.6	61.6	62.3	60.8	61.6	
GTA-PZ27	36.6	2	33.6	26.61	34.2							1.7x12DS	1	1.5 Std	H-Frame		150ml	33.6	35.1	34.7	33.7	34.2	
GTA-PZ28D	65.7	2	33.0	55.72	60.7							1.7x18DS	1	1.5 Std	H-Frame		350ml	55.7	60.7	61.5	60.0	60.7	
GTA-PZ5	36.4	2	29.2	26.42	31.4							1.7x18DS	1	1.5 Std	H-Frame		350ml	29.2	32.8	32.2	30.7	31.4	
GTA-PZ6D	81.8	2	29.2	71.8	76.8							1.7x18DS	1	1.5 Std	H-Frame		350ml	71.8	76.8	77.6	76.1	76.8	
GTA-PZ25	21.4	2	10.0	11.41	16.4							1.7x18DS	1	1.5 Std	H-Frame		350ml	11.4	16.4	17.2	15.7	16.4	
WSA-PZ39	21.6	2	11.7	11.56	16.6							1.7x18DS	1	1.5 Std	H-Frame		350ml	11.7	16.6	17.3	15.8	16.6	
WSA-PZ45D	69.2	2	13.2	59.15	64.2							1.7x18DS	1	1.5 Std	H-Frame		350ml	59.2	64.2	64.9	63.4	64.2	
NLA-PZ46	26.5	2	19.6	16.45	21.5							1.7x18DS	1	1.5 Std	H-Frame		350ml	19.6	23.0	22.2	20.7	21.5	
NLA-PZ55D	66.6	2	19.0	56.55	61.6							1.7x18DS	1	1.5 Std	H-Frame		350ml	56.6	61.6	62.3	60.8	61.6	
SSA-PZ62D	52.0	2	5.4	42.03	47.0							1.7x18DS	1	1.5 Std	H-Frame		350ml	42.0	47.0	47.8	46.3	47.0	
BIA-MW-D1	51.3	2	49.4	41.29	50.0							1.7x12DS	1	1.5 Std	H-Frame		150ml	49.4	50.4	50.5	49.5	50.0	
BIA-MW-2	51.3	2	38.6	41.3	46.3							1.7x18DS	1	1.5 Std	H-Frame		350ml	41.3	46.3	47.1	45.6	46.3	
BIA-MW-3	59.5	2	53.6	49.48	55.0							1.7x18DS	1	1.5 Std	H-Frame		350ml	53.6	56.5	55.8	54.3	55.0	
BIA-MW-5	18.1	2	6.2	8.11	13.1							1.7x18DS	1	1.5 Std	H-Frame		350ml	8.1	13.1	13.9	12.4	13.1	
BIA-MW-6	16.8	2	3.0	6.8	11.8							1.7x18DS	1	1.5 Std	H-Frame		350ml	6.8	11.8	12.6	11.1	11.8	
CCA-MW1	39.5	4	38.9	29.5	39.0							1.7x18DS	1	1.5 Std	H-Frame		350ml	38.9	39.2	39.8	38.3	39.0	
													1					0.0		0.0	0.0		
													0					0.0		0.0	0.0		
													0					0.0		0.0	0.0		

Project Name: Little Valley Site MNA Wells, NYSDEC Site ID # 9-05-026  
 Project Number: Watts Project # 1202501; AECOM Project # 60266877.1  
 Dates: July 31st, August 1st, and August 2nd, 2019  
 Names: Matt Holquist, Mike Gerber

Well ID	Total Depth (TOIC ft)	Round 1 Water Depth (TOIC ft)	Round 2 Water Depth (TOIC ft)	Round 3 Water Depth (TOIC ft)	Screen Length (ft)	Well Diameter (in)	Flush Mount Bolts	Notes
CCA-MW1	39.50	24.72	26.95	23.33	10	4"	riser	
CCA-MW2	41.60	20.53	22.82	19.35	10	4"	riser	
CCA-MW3	38.60	23.53	26.05	22.18	10	4"	riser	
CCA-MW4	45.67	23.28	25.51	21.83	10	4"	3 - 9/16"	Business owner at end of driveway hit this well while plowing the driveway this winter. He stated that he has been plowing this for years and never hit it before as this well has historically not been heaved and elevated above ground.
CCA-MW5	45.00	22.67	24.97	21.35	10	4"	3 - 9/16"	
CCA-MW6	45.42	21.70	23.92	20.28	10	4"	3 - 9/16"	
CCA-MW7	46.45	22.11	24.35	20.72	10	4"	3 - 9/16"	
CCA-MW8	89.29	23.02	25.21	21.62	10	4"	riser	
CCA-MW9D	68.65	21.59	23.85	21.20	10	4"	2 - ~3/4"	
CCA-MW10	43.73	21.62	23.88	20.25	20	4"	2 - ~3/4"	
CCA-MW11D	68.65	23.35	25.63	22.00	10	4"	2 - ~3/4"	
CCA-MW12	44.33	22.43	25.02	21.32	20	4"	2 - ~3/4"	
CCA-PZ20D	81.78	25.26	27.30	23.95	10	2"	riser	
GTA-LV8	39.67	23.24	23.21	22.77	10	2"	riser	
GTA-PZ32	86.68	76.17	75.93	75.72	10	2"	riser	
GTA-PZ47D	91.54	46.04	45.85	45.85	10	2"	riser	
GTA-PZ48	67.79	47.87	47.53	47.54	10	2"	riser	North well in cluster. Inner well casing down ~18" within outer well casing. As a result, measure depths to outer well casing.
GTA-PZ38	66.58	46.75	46.51	46.55	10	2"	riser	
GTA-PZ27	36.61	32.12	31.82	32.06	10	2"	riser	South well in cluster.
GTA-PZ28D	65.72	31.57	31.30	31.45	10	2"	riser	North well in cluster.
GTA-PZ5	36.42	27.77	27.20	27.68	10	2"	riser	North well in cluster.
GTA-PZ6D	81.80	27.79	27.22	27.72	10	2"	riser	South well in cluster.
GTA-PZ25	21.41	9.35	9.06	9.57	10	2"	riser	
WSA-PZ39	21.56	10.62	9.68	11.55	10	2"	3 - 9/16"	East well in cluster.
WSA-PZ45D	69.15	12.71	10.90	12.61	10	2"	3 - 9/16"	West well in cluster. Water within outer casing.
NLA-PZ46	26.45	19.32	18.70	19.37	10	2"	riser	East well in cluster.
NLA-PZ55D	66.55	18.76	18.28	18.97	10	2"	riser	West well in cluster.
SSA-PZ62D	52.03	5.03	4.55	5.39	10	2"	riser	
BIA-MW-D1	51.29	45.59	47.55	44.18	10	2"	2 - 9/16"	Water within outer casing. Bolts do not thread. Recommend replacing bolts.
BIA-MW-D2	-	-	-	-	-	-	-	Could not locate. 8/2019 - Discuss w/ Doug Phillips, Maintenance Personnel, from Innovative Wood Solutions (current business at property)
BIA-MW-2	51.30	36.27	36.89	34.40	10	2"	riser	
BIA-MW-3	59.48	47.20	49.49	47.78	10	2"	2 - 9/16"	
BIA-MW-5	18.11	6.36	6.29	6.56	10	2"	riser	
BIA-MW-6	16.68	2.91	3.08	3.11	10	2"	riser	

## WELL DEVELOPMENT/PURGING LOG

**PROJECT TITLE :** Little Valley Site, Emerging Contaminant Sampling Program  
**PROJECT NUMBER :** 1202501 NYSDEC Site Code 905026  
**STAFF :** Matthew E. Holquist & Mike Gerber  
**DATE :** Tuesday, June 11, 2019

WELL NUMBER :	<u>WSA-PZ-45D (page 1 of 3)</u>	WELL Diameter	VOL GAL./FT
1. TOTAL CASING AND SCREEN LENGHT (ft) :	69.15	1"	0.04
2. CASING INTERNAL DIAMETER (in) :	2	2"	0.16
3. DEPTH TO WATER (ft.) :	11.68	3"	0.37
4. WATER COLUMN (ft):	57.47	4"	0.65
5. VOLUME OF WATER IN CASING (GAL.):	9.20	5"	1.02
		6"	1.47
		8"	2.61

Begin purge at 10:02.

PARAMETERS	TIME						
	10:02	10:12	10:22	10:32	10:42	10:52	11:02
WATER LEVEL (ft)	11.89	12.00	12.02	12.02	12.02	12.02	12.02
VOLUME PURGED (gal)	0	1	2	3	4	5	6
TEMPERATURE (°C)	11.8	9.6	9.6	9.7	10.0	10.0	10.0
CONDUCTIVITY (ms/cm)	0.105	0.101	0.101	0.104	0.131	0.153	0.252
pH	6.25	6.24	6.24	6.24	6.37	6.57	6.82
DISSOLVED OXYGEN (%)	60.9	58.6	57.3	48.6	22.0	16.3	14.8
ORP (mV)	124.3	155.8	165.1	144.4	38.6	-2.0	13.1
TURBIDITY (NTU)	28.02	21.15	17.53	11.55	10.11	11.90	19.31

**COMMENTS :**

- Sample WSA-PZ-45D-061119 collected at 15:15.

Equipment used:

- YSI ProDSS (FA02042 SN# 15B102246) w/ flow through cell
- Heron Skinny Dipper (FA03474) 100' water depth meter
- Geopump Series 2 Drive Peristaltic Pump (FA02021)

Collect Field Blank-061119 at 15:30.



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## WELL DEVELOPMENT/PURGING LOG

**PROJECT TITLE :** Little Valley Site, Emerging Contaminant Sampling Program  
**PROJECT NUMBER :** 1202501 NYSDEC Site Code 905026  
**STAFF :** Matthew E. Holquist & Mike Gerber  
**DATE :** Tuesday, June 11, 2019

WELL NUMBER :	<u>WSA-PZ-45D (page 2 of 3)</u>	WELL Diameter	VOL GAL./FT
1. TOTAL CASING AND SCREEN LENGHT (ft) :	69.15	1"	0.04
2. CASING INTERNAL DIAMETER (in) :	2	2"	0.16
3. DEPTH TO WATER (ft.) :	11.68	3"	0.37
4. WATER COLUMN (ft):	57.47	4"	0.65
5. VOLUME OF WATER IN CASING (GAL.):	9.20	5"	1.02
		6"	1.47
		8"	2.61

PARAMETERS	TIME						
	11:22	11:42	12:02	12:22	12:42	13:02	13:22
WATER LEVEL (ft)	12.02	12.00	11.98	11.97	11.88	11.95	11.96
VOLUME PURGED (gal)	8	10	12	13.5	15	16.5	18.25
TEMPERATURE (°C)	9.9	10.2	11.7	12.6	13.1	12.3	12.4
CONDUCTIVITY (ms/cm)	0.365	0.373	0.377	0.379	0.378	0.380	0.379
pH	7.35	7.50	7.60	7.65	7.66	7.65	7.67
DISSOLVED OXYGEN (%)	47.9	50.7	52.7	53.1	54.5	54.3	57.4
ORP (mV)	46.5	64.4	66.4	76.6	85.5	91.4	93.6
TURBIDITY (NTU)	46.38	47.93	61.33	155.06	199.03	91.42	34.14

**COMMENTS :**

- Sample WSA-PZ-45D-061119 collected at 15:15.

Equipment used:

- YSI ProDSS (FA02042 SN# 15B102246) w/ flow through cell
- Heron Skinny Dipper (FA03474) 100' water depth meter
- Geopump Series 2 Drive Peristaltic Pump (FA02021)

Collect Field Blank-061119 at 15:30.



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## WELL DEVELOPMENT/PURGING LOG

**PROJECT TITLE :** Little Valley Site, Emerging Contaminant Sampling Program  
**PROJECT NUMBER :** 1202501 NYSDEC Site Code 905026  
**STAFF :** Matthew E. Holquist & Mike Gerber  
**DATE :** Tuesday, June 11, 2019

WELL NUMBER :	<u>WSA-PZ-45D (page 3 of 3)</u>	WELL Diameter	VOL GAL./FT
1. TOTAL CASING AND SCREEN LENGHT (ft) :	<u>69.15</u>	1"	0.04
2. CASING INTERNAL DIAMETER (in) :	<u>2</u>	2"	0.16
3. DEPTH TO WATER (ft.) :	<u>11.68</u>	3"	0.37
4. WATER COLUMN (ft):	<u>57.47</u>	4"	0.65
5. VOLUME OF WATER IN CASING (GAL.):	<u>9.20</u>	5"	1.02
		6"	1.47
		8"	2.61

PARAMETERS	TIME						
	13:42	14:02	14:22	14:42	15:02	15:15	
WATER LEVEL (ft)	11.96	11.94	11.97	12.00	12.00	12.00	
VOLUME PURGED (gal)	20.0	21.75	23.25	25.0	26.25	28.0	
TEMPERATURE (°C)	12.9	12.7	12.3	11.1	10.7	10.4	
CONDUCTIVITY (ms/cm)	0.380	0.380	0.380	0.381	0.382	0.381	
pH	7.67	7.66	7.64	7.60	7.61	7.62	
DISSOLVED OXYGEN (%)	55.6	55.2	54.7	54.1	53.7	53.4	
ORP (mV)	98.4	97.4	90.6	71.8	66.0	59.6	
TURBIDITY (NTU)	11.63	21.84	23.75	20.20	18.18	15.40	

**COMMENTS :**

- Sample WSA-PZ-45D-061119 collected at 15:15.

Equipment used:

- YSI ProDSS (FA02042 SN# 15B102246) w/ flow through cell
- Heron Skinny Dipper (FA03474) 100' water depth meter
- Geopump Series 2 Drive Peristaltic Pump (FA02021)

Collect Field Blank-061119 at 15:30.



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## WELL DEVELOPMENT/PURGING LOG

**PROJECT TITLE :** Little Valley Site, Emerging Contaminant Sampling Program  
**PROJECT NUMBER :** 1202501 NYSDEC Site Code 905026  
**STAFF :** Matthew E. Holquist & Mike Gerber  
**DATE :** Wednesday, June 12, 2019

<b>WELL NUMBER :</b> <u>CCA-MW-10 (page 1 of 2)</u>	<b>WELL Diameter</b>	<b>VOL GAL./FT</b>
<b>1. TOTAL CASING AND SCREEN LENGHT (ft) :</b> _____	1"	0.04
<b>2. CASING INTERNAL DIAMETER (in) :</b> _____	2"	0.16
<b>3. DEPTH TO WATER (ft.) :</b> _____	3"	0.37
<b>4. WATER COLUMN (ft):</b> _____	4"	0.65
<b>5. VOLUME OF WATER IN CASING (GAL.):</b> _____	5"	1.02
	6"	1.47
	8"	2.61

Begin purge at 9:00.

<b>PARAMETERS</b>	<b>TIME</b>						
	9:30	10:00	10:30	11:00	11:30	12:00	12:30
WATER LEVEL (ft)	22.19	22.20	22.18	22.19	22.15	22.17	22.15
VOLUME PURGED (gal)	1.75	4.10	7.90	11.25	15.00	18.25	21.75
TEMPERATURE (°C)	9.3	8.6	8.6	8.9	8.8	9.0	9.0
CONDUCTIVITY (ms/cm)	0.230	0.233	0.235	0.238	0.243	0.281	0.294
pH	6.40	6.44	6.50	6.51	6.55	6.74	6.83
DISSOLVED OXYGEN (%)	59.6	60.3	60.1	60.1	60.9	63.1	62.7
ORP (mV)	155.7	174.2	178.1	182.7	186.2	185.5	184.3
TURBIDITY (NTU)	9.75	11.01	9.59	8.92	7.33	4.05	3.14

**COMMENTS :**

- Sample CCA-MW-10-061219 collected at 15:35.

Equipment used:

- YSI ProDSS (FA02042 SN# 15B102246) w/ flow through cell
- Heron Skinny Dipper (FA03474) 100' water depth meter
- QED MP50 Controller/Compressor (FA02072)
- QED Sample ProPump 1.75" (FA261 Part# 38355)

Sample Rinsate Blank-061219 at 16:05.  
 Sample Duplicate-061219 at 15:50.  
 Sample Field Blank-061219 at 16:15.

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## WELL DEVELOPMENT/PURGING LOG

**PROJECT TITLE :** Little Valley Site, Emerging Contaminant Sampling Program  
**PROJECT NUMBER :** 1202501 NYSDEC Site Code 905026  
**STAFF :** Matthew E. Holquist & Mike Gerber  
**DATE :** Wednesday, June 12, 2019

WELL NUMBER :	<u>CCA-MW-10 (page 2 of 2)</u>	WELL Diameter	VOL GAL./FT
1. TOTAL CASING AND SCREEN LENGHT (ft) :	43.73	1"	0.04
2. CASING INTERNAL DIAMETER (in) :	4	2"	0.16
3. DEPTH TO WATER (ft.) :	22.2	3"	0.37
4. WATER COLUMN (ft):	21.53	4"	0.65
5. VOLUME OF WATER IN CASING (GAL.):	13.99	5"	1.02
		6"	1.47
		8"	2.61

PARAMETERS	TIME						
	13:00	13:30	14:00	14:30	15:00	15:30	
WATER LEVEL (ft)	22.16	22.18	22.16	22.16	22.15	22.16	
VOLUME PURGED (gal)	25.25	28.50	31.50	35.00	38.50	42.25	
TEMPERATURE (°C)	9.1	9.0	9.5	9.1	9.0	9.0	
CONDUCTIVITY (ms/cm)	0.294	0.293	0.299	0.300	0.298	0.313	
pH	6.82	6.81	6.83	6.86	6.86	6.89	
DISSOLVED OXYGEN (%)	63.4	64.0	63.6	63.1	63.7	62.1	
ORP (mV)	184.7	182.7	134.4	98.6	148.9	161.8	
TURBIDITY (NTU)	2.81	7.78	2.72	2.63	2.51	2.15	

**COMMENTS :**

- Sample CCA-MW-10-061219 collected at 15:35.

Equipment used:

- YSI ProDSS (FA02042 SN# 15B102246) w/ flow through cell
- Heron Skinny Dipper (FA03474) 100' water depth meter
- QED MP50 Controller/Compressor (FA02072)
- QED Sample ProPump 1.75" (FA261 Part# 38355)

Sample Rinsate Blank-061219 at 16:05.  
Sample Duplicate-061219 at 15:50.  
Sample Field Blank-061219 at 16:15.

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## WELL DEVELOPMENT/PURGING LOG

**PROJECT TITLE :** Little Valley Site, Emerging Contaminant Sampling Program  
**PROJECT NUMBER :** 1202501 NYSDEC Site Code 905026  
**STAFF :** Matthew E. Holquist & Mike Gerber  
**DATE :** Wednesday, June 12, 2019

<b>WELL NUMBER :</b>	<u>BIA-MW-6</u>	<b>WELL</b>	<b>VOL GAL./FT</b>
		<b>Diameter</b>	
<b>1. TOTAL CASING AND SCREEN LENGHT (ft) :</b>	<u>16.68</u>	1"	0.04
<b>2. CASING INTERNAL DIAMETER (in) :</b>	<u>2</u>	2"	0.16
<b>3. DEPTH TO WATER (ft.) :</b>	<u>2.98</u>	3"	0.37
<b>4. WATER COLUMN (ft):</b>	<u>13.7</u>	4"	0.65
<b>5. VOLUME OF WATER IN CASING (GAL.):</b>	<u>2.19</u>	5"	1.02
		6"	1.47
		8"	2.61

Begin purge at 17:02.

PARAMETERS	TIME						
	17:12	17:22	17:32	17:42	17:52	17:57	
WATER LEVEL (ft)	5.38	5.38	5.35	5.28	5.23	5.20	
VOLUME PURGED (gal)	1.10	2.50	3.75	5.00	6.25	7.00	
TEMPERATURE (°C)	11.5	11.5	11.3	11.4	11.4	11.3	
CONDUCTIVITY (ms/cm)	0.206	0.220	0.225	0.225	0.226	0.225	
pH	6.36	6.32	6.32	6.32	6.32	6.32	
DISSOLVED OXYGEN (%)	4.3	2.3	0.8	0.5	0.4	0.3	
ORP (mV)	126.5	123.6	118.6	113.5	109.1	107.7	
TURBIDITY (NTU)	275.50	137.60	66.20	41.07	24.60	18.24	

**COMMENTS :**

- Sample BIA-MW-6-061219 collected at 18:00.

Equipment used:

- YSI ProDSS (FA02042 SN# 15B102246) w/ flow through cell
- Heron Skinny Dipper (FA03474) 100' water depth meter
- Geopump Series 2 Drive Peristaltic Pump (FA02021)



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## WELL DEVELOPMENT/PURGING LOG

**PROJECT TITLE :** Little Valley Site, Emerging Contaminant Sampling Program  
**PROJECT NUMBER :** 1202501 NYSDEC Site Code 905026  
**STAFF :** Matthew E. Holquist & Mike Gerber  
**DATE :** Thursday, June 13, 2019

WELL NUMBER :	<u>NLA-PZ-55D (page 1 of 2)</u>	WELL Diameter	VOL GAL./FT
1. TOTAL CASING AND SCREEN LENGHT (ft) :	66.55	1"	0.04
2. CASING INTERNAL DIAMETER (in) :	2	2"	0.16
3. DEPTH TO WATER (ft.) :	18.51	3"	0.37
4. WATER COLUMN (ft):	48.04	4"	0.65
5. VOLUME OF WATER IN CASING (GAL.):	7.69	5"	1.02
		6"	1.47
		8"	2.61

Begin purge at 12:22, water flow at 12:30.

PARAMETERS	TIME						
	12:50	13:10	13:30	13:50	14:10	14:30	14:50
WATER LEVEL (ft)	18.51	18.52	18.52	18.51	18.51	18.53	18.52
VOLUME PURGED (gal)	2.00	4.00	6.00	8.00	10.00	11.75	13.65
TEMPERATURE (°C)	10.5	10.5	10.5	10.5	11.1	11.5	11.0
CONDUCTIVITY (ms/cm)	0.429	0.435	0.435	0.436	0.436	0.436	0.437
pH	7.45	7.70	7.76	7.79	7.82	7.83	7.84
DISSOLVED OXYGEN (%)	38.3	46.8	47.5	47.4	48.0	48.8	48.6
ORP (mV)	185.4	178.1	177.2	177.3	173.5	170.6	171.3
TURBIDITY (NTU)	8.65	6.33	3.90	2.96	2.40	2.25	2.48

**COMMENTS :**

- Sample NLA-PZ-55D-061319 collected at 16:40.
- Equipment used:
  - YSI ProDSS (FA02042 SN# 15B102246) w/ flow through cell
  - Heron Skinny Dipper (FA03474) 100' water depth meter
  - QED MP50 Controller/Compressor (FA02072)
  - QED Sample ProPump 1.75" (FA261 Part# 38355)
- Field Blank-061319 sampled at 16:55

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## WELL DEVELOPMENT/PURGING LOG

**PROJECT TITLE :** Little Valley Site, Emerging Contaminant Sampling Program  
**PROJECT NUMBER :** 1202501 NYSDEC Site Code 905026  
**STAFF :** Matthew E. Holquist & Mike Gerber  
**DATE :** Thursday, June 13, 2019

WELL NUMBER :	<u>NLA-PZ-55D (page 2 of 2)</u>	WELL Diameter	VOL GAL./FT
1. TOTAL CASING AND SCREEN LENGHT (ft) :	66.55	1"	0.04
2. CASING INTERNAL DIAMETER (in) :	2	2"	0.16
3. DEPTH TO WATER (ft.) :	18.51	3"	0.37
4. WATER COLUMN (ft):	48.04	4"	0.65
5. VOLUME OF WATER IN CASING (GAL.):	7.69	5"	1.02
		6"	1.47
		8"	2.61

PARAMETERS	TIME						
	15:10	15:30	15:50	16:10	16:30	16:35	
WATER LEVEL (ft)	18.52	18.52	18.53	18.53	18.52	18.53	
VOLUME PURGED (gal)	15.25	17.25	19.00	20.75	22.75	23.25	
TEMPERATURE (°C)	11.1	10.8	10.7	10.4	10.3	10.4	
CONDUCTIVITY (ms/cm)	0.437	0.437	0.437	0.437	0.437	0.437	
pH	7.84	7.85	7.84	7.84	7.84	7.84	
DISSOLVED OXYGEN (%)	48.2	47.7	47.6	47.4	47.2	47.4	
ORP (mV)	172.0	173.8	176.9	180.5	181.5	181.7	
TURBIDITY (NTU)	2.72	2.81	3.05	3.38	3.56	3.68	

**COMMENTS :**

- Sample NLA-PZ-55D-061319 collected at 16:40.

Equipment used:

- YSI ProDSS (FA02042 SN# 15B102246) w/ flow through cell
- Heron Skinny Dipper (FA03474) 100' water depth meter
- QED MP50 Controller/Compressor (FA02072)
- QED Sample ProPump 1.75" (FA261 Part# 38355)

Field Blank-061319 sampled at 16:55



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## WELL DEVELOPMENT/PURGING LOG

**PROJECT TITLE :** Little Valley Site, Emerging Contaminant Sampling Program  
**PROJECT NUMBER :** 1202501 NYSDEC Site Code 905026  
**STAFF :** Matthew E. Holquist & Mike Gerber  
**DATE :** Friday, June 14, 2019

WELL NUMBER :	<u>SSA-PZ-62D (page 1 of 2)</u>	WELL Diameter	VOL GAL./FT
1. TOTAL CASING AND SCREEN LENGHT (ft) :	52.03	1"	0.04
2. CASING INTERNAL DIAMETER (in) :	2	2"	0.16
3. DEPTH TO WATER (ft.) :	4.83	3"	0.37
4. WATER COLUMN (ft):	47.2	4"	0.65
5. VOLUME OF WATER IN CASING (GAL.):	7.55	5"	1.02
		6"	1.47
		8"	2.61

Begin purge at 9:28, water flow at 9:30.

PARAMETERS	TIME						
	9:50	10:10	10:30	10:50	11:10	11:30	11:50
WATER LEVEL (ft)	4.87	4.87	4.90	4.85	4.85	4.86	4.86
VOLUME PURGED (gal)	2.00	5.00	7.25	10.00	12.25	15.00	17.25
TEMPERATURE (°C)	10.3	10.0	10.1	10.1	10.2	10.3	10.4
CONDUCTIVITY (ms/cm)	0.379	0.386	0.386	0.365	0.373	0.380	0.384
pH	7.58	7.74	7.76	7.77	7.77	7.78	7.78
DISSOLVED OXYGEN (%)	55.1	47.0	46.6	46.1	46.1	45.8	45.7
ORP (mV)	153.5	154.3	157.4	160.5	162.8	164.4	166.1
TURBIDITY (NTU)	10.92	332.10	76.80	37.40	21.91	18.95	15.95

**COMMENTS :**

- Sample SSA-PZ-62D-061419 collected at 12:40.

Equipment used:

- YSI ProDSS (FA02042 SN# 15B102246) w/ flow through cell
- Heron Skinny Dipper (FA03474) 100' water depth meter
- QED MP50 Controller/Compressor (FA02072)
- QED Sample ProPump 1.75" (FA261 Part# 38355)

Field Blank-061419 collected at 12:55



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## WELL DEVELOPMENT/PURGING LOG

**PROJECT TITLE :** Little Valley Site, Emerging Contaminant Sampling Program  
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**STAFF :** Matthew E. Holquist & Mike Gerber  
**DATE :** Friday, June 14, 2019

WELL NUMBER :	<u>SSA-PZ-62D (page 2 of 2)</u>	WELL Diameter	VOL GAL./FT
1. TOTAL CASING AND SCREEN LENGHT (ft) :	52.03	1"	0.04
2. CASING INTERNAL DIAMETER (in) :	2	2"	0.16
3. DEPTH TO WATER (ft.) :	4.83	3"	0.37
4. WATER COLUMN (ft):	47.2	4"	0.65
5. VOLUME OF WATER IN CASING (GAL.):	7.55	5"	1.02
		6"	1.47
		8"	2.61

PARAMETERS	TIME						
	12:10	12:30					
WATER LEVEL (ft)	4.86	4.85					
VOLUME PURGED (gal)	20.00	22.75					
TEMPERATURE (°C)	10.4	10.7					
CONDUCTIVITY (ms/cm)	0.386	0.386					
pH	7.78	7.79					
DISSOLVED OXYGEN (%)	45.9	46.0					
ORP (mV)	167.0	167.9					
TURBIDITY (NTU)	12.37	10.72					

**COMMENTS :**

- Sample SSA-PZ-62D-061419 collected at 12:40.

Equipment used:

- YSI ProDSS (FA02042 SN# 15B102246) w/ flow through cell
- Heron Skinny Dipper (FA03474) 100' water depth meter
- QED MP50 Controller/Compressor (FA02072)
- QED Sample ProPump 1.75" (FA261 Part# 38355)

Field Blank-061419 collected at 12:55



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## WELL DEVELOPMENT/PURGING LOG

**PROJECT TITLE :** Little Valley Site, Emerging Contaminant Sampling Program  
**PROJECT NUMBER :** 1202501 NYSDEC Site Code 905026  
**STAFF :** Matthew E. Holquist & Mike Gerber  
**DATE :** Friday, June 14, 2019

WELL NUMBER :	<u>GTA-PZ-32 (page 1 of 2)</u>	WELL Diameter	VOL GAL./FT
1. TOTAL CASING AND SCREEN LENGHT (ft) :	86.68	1"	0.04
2. CASING INTERNAL DIAMETER (in) :	2	2"	0.16
3. DEPTH TO WATER (ft.) :	75.7	3"	0.37
4. WATER COLUMN (ft):	10.98	4"	0.65
5. VOLUME OF WATER IN CASING (GAL.):	1.76	5"	1.02
		6"	1.47
		8"	2.61

Begin purge at 14:25, water flow at 14:33.

PARAMETERS	TIME						
	14:38	14:43	14:58	15:08	15:18	15:28	15:38
WATER LEVEL (ft)	75.70	75.70	75.70	75.70	75.70	75.70	75.70
VOLUME PURGED (gal)	0.2	0.5	1.60	2.25	3.00	3.70	4.50
TEMPERATURE (°C)	13.8	11.5	11.2	11.4	11.3	11.3	11.5
CONDUCTIVITY (ms/cm)	0.294	0.290	0.271	0.270	0.268	0.268	0.268
pH	7.91	7.92	7.95	7.96	7.96	7.97	7.97
DISSOLVED OXYGEN (%)	69.3	66.6	66.3	66.1	65.7	65.4	65.4
ORP (mV)	150.7	153.6	153.6	152.7	151.8	150.6	149.0
TURBIDITY (NTU)	1180.0	1100.0	198.2	95.4	66.02	61.6	54.5

**COMMENTS :**

- Sample GTA-PZ-32-061419 collected at 16:00.

Equipment used:

- YSI ProDSS (FA02042 SN# 15B102246) w/ flow through cell
- Heron Skinny Dipper (FA03474) 100' water depth meter
- QED MP50 Controller/Compressor (FA02072)
- QED Sample ProPump 1.75" (FA261 Part# 38355)



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## WELL DEVELOPMENT/PURGING LOG

**PROJECT TITLE :** Little Valley Site, Emerging Contaminant Sampling Program  
**PROJECT NUMBER :** 1202501 NYSDEC Site Code 905026  
**STAFF :** Matthew E. Holquist & Mike Gerber  
**DATE :** Friday, June 14, 2019

WELL NUMBER :	<u>GTA-PZ-32 (page 2 of 2)</u>	WELL Diameter	VOL GAL./FT
1. TOTAL CASING AND SCREEN LENGTH (ft) :	86.68	1"	0.04
2. CASING INTERNAL DIAMETER (in) :	2	2"	0.16
3. DEPTH TO WATER (ft.) :	75.7	3"	0.37
4. WATER COLUMN (ft):	10.98	4"	0.65
5. VOLUME OF WATER IN CASING (GAL.):	1.76	5"	1.02
		6"	1.47
		8"	2.61

PARAMETERS	TIME						
	15:48	15:58					
WATER LEVEL (ft)	75.70	75.70					
VOLUME PURGED (gal)	5.0	5.5					
TEMPERATURE (°C)	11.5	11.8					
CONDUCTIVITY (ms/cm)	0.268	0.268					
pH	7.97	7.96					
DISSOLVED OXYGEN (%)	65.3	66.6					
ORP (mV)	148.8	153.5					
TURBIDITY (NTU)	59.70	39.55					

**COMMENTS :**

- Sample GTA-PZ-32-061419 collected at 16:00.

Equipment used:

- YSI ProDSS (FA02042 SN# 15B102246) w/ flow through cell
- Heron Skinny Dipper (FA03474) 100' water depth meter
- QED MP50 Controller/Compressor (FA02072)
- QED Sample ProPump 1.75" (FA261 Part# 38355)



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## WELL DEVELOPMENT/PURGING LOG

**PROJECT TITLE :** Little Valley Site, MNA Program  
**PROJECT NUMBER :** 1202501 NYSDEC Site Code 905026  
**STAFF :** Matthew E. Holquist & Mike Gerber  
**DATE :** Wednesday, July 31, 2019

WELL NUMBER :	WSA-PZ45 D	WELL Diameter	VOL GAL/FT
1. TOTAL CASING AND SCREEN LENGHT (ft) :	69.15	1"	0.04
2. CASING INTERNAL DIAMETER (in) :	2	2"	0.16
3. DEPTH TO WATER (ft.) :	12.61	3"	0.37
4. WATER COLUMN (ft):	56.54	4"	0.65
5. VOLUME OF WATER IN CASING (GAL.):	9.05	5"	1.02
		6"	1.47
		8"	2.61

Begin purge at 09:08.

PARAMETERS	TIME						
	9:13	9:18	9:23	9:28	9:33	9:38	9:43
WATER LEVEL (ft)	12.65	12.66	12.72	12.70	12.71	12.69	12.70
VOLUME PURGED INTERVAL (mL)	600	800	500	600	700	800	600
VOLUME PURGED CUMULATIVE TOTAL (L)	0.6	1.4	1.9	2.5	3.2	4.0	4.6
TEMPERATURE (°C)	13.7	11.9	11.9	11.8	11.8	11.8	11.8
DISSOLVED OXYGEN (%)	53.7	50.3	48.4	46.4	45.1	44.7	44.9
CONDUCTIVITY (ms/cm)	0.358	0.367	0.369	0.369	0.369	0.369	0.368
pH	7.39	7.40	7.40	7.41	7.41	7.41	7.41
ORP (mV)	190.5	192.0	191.9	191.0	190.1	188.3	187.2
TURBIDITY (NTU)	11.70	13.50	13.62	16.57	22.30	31.84	32.66

**COMMENTS :** LVRA-WSA-PZ45D-PDB-073119 sampled at 08:40.  
 - Sample LVRA-WSA-PZ45D-073119 collected at 09:45.  
 Equipment used:  
 - YSI ProDSS (FA03699) with Flow through cell  
 - QED MP50 Controller/Compressor (SN3896)  
 - QED Sample Pro Pump 1.75" (SN1200)  
 - Solinst Water Level Meter Model 101



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## WELL DEVELOPMENT/PURGING LOG

**PROJECT TITLE :** Little Valley Site, MNA Program  
**PROJECT NUMBER :** 1202501 NYSDEC Site Code 905026  
**STAFF :** Matthew E. Holquist & Mike Gerber  
**DATE :** Wednesday, July 31, 2019

<b>WELL NUMBER :</b> <u>LVRA-GTA-PZ32</u>	<b>WELL</b>	<b>VOL GAL/FT</b>
	<b>Diameter</b>	
<b>1. TOTAL CASING AND SCREEN LENGHT (ft) :</b> <u>86.68</u>	1"	0.04
<b>2. CASING INTERNAL DIAMETER (in) :</b> <u>2</u>	2"	0.16
<b>3. DEPTH TO WATER (ft.) :</b> <u>75.72</u>	3"	0.37
<b>4. WATER COLUMN (ft):</b> <u>10.96</u>	4"	0.65
<b>5. VOLUME OF WATER IN CASING (GAL.):</b> <u>1.75</u>	5"	1.02
	6"	1.47
	8"	2.61

Begin purge at 11:18, water flow at 11:21.

PARAMETERS	TIME						
	11:26	11:31	11:36	11:48	12:09	12:22	
WATER LEVEL (ft)	75.78	75.75	75.77	75.75	75.75	75.75	
VOLUME PURGED INTERVAL (mL)	1100	500	1250	800	1250	500	
VOLUME PURGED CUMULATIVE TOTAL (L)	1.1	1.6	2.85	3.65	4.9	5.4	
TEMPERATURE (°C)	12.4	12.7	11.9	15.4	13.7	13.8	
DISSOLVED OXYGEN (%)	70.4	71.0	68.8	73.2	71.7	72.1	
CONDUCTIVITY (ms/cm)	0.261	0.263	0.262	0.262	0.261	0.263	
pH	7.85	7.87	7.87	7.84	7.86	7.85	
ORP (mV)	177.2	178.5	180.9	184.4	190.8	186.7	
TURBIDITY (NTU)	375.0	260.0	217.0	125.0	41.0	22.0	

**COMMENTS :**

- Sample LVRA-GTA-PZ32-PDB-073119 at 10:45.
- Sample LVRA-GTA-PZ32-073119 collected at 12:25 to 12:40.

Equipment used:

- YSI ProDSS (FA03699) with Flow through cell
- QED MP50 Controller/Compressor (SN3896)
- QED Sample Pro Pump 1.75" (SN1200)
- Solinst Water Level Meter Model 101

Pump/control box issues at 11:36-11:45 cycle. Unplug/reboot/unpressurize again at 11:50 to 12:05 and then at 12:22. Had to cycle pump on/off once during sampling.



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## WELL DEVELOPMENT/PURGING LOG

**PROJECT TITLE :** Little Valley Site, MNA Program  
**PROJECT NUMBER :** 1202501 NYSDEC Site Code 905026  
**STAFF :** Matthew E. Holquist & Mike Gerber  
**DATE :** Thursday, August 1, 2019

WELL NUMBER :	LVRA-BIA-MW-2	WELL Diameter	VOL GAL/FT
1. TOTAL CASING AND SCREEN LENGHT (ft) :	51.30	1"	0.04
2. CASING INTERNAL DIAMETER (in) :	2	2"	0.16
3. DEPTH TO WATER (ft.) :	34.4	3"	0.37
4. WATER COLUMN (ft):	16.9	4"	0.65
5. VOLUME OF WATER IN CASING (GAL.):	2.70	5"	1.02
		6"	1.47
		8"	2.61

Begin purge at 08:44, water flow at 08.46.

PARAMETERS	TIME						
	8:52	8:58	9:03	9:08	9:13	9:18	9:23
WATER LEVEL (ft)	36.30	36.28	36.45	36.58	36.60	36.75	36.82
VOLUME PURGED INTERVAL (mL)	2000	900	700	800	800	800	800
VOLUME PURGED CUMULATIVE TOTAL (L)	2.0	2.9	3.6	4.4	5.2	6.0	6.8
TEMPERATURE (°C)	11.3	12.7	12.9	13.0	13.1	13.2	13.2
DISSOLVED OXYGEN (%)	11.0	11.4	11.7	13.2	13.5	12.8	12.1
CONDUCTIVITY (ms/cm)	0.429	0.430	0.429	0.429	0.429	0.430	0.430
pH	6.89	6.91	6.91	6.91	6.91	6.91	6.91
ORP (mV)	183.8	182.7	183.1	183.6	183.9	184.2	184.4
TURBIDITY (NTU)	17.80	15.85	12.33	10.50	9.10	6.72	4.92

**COMMENTS :**

- Sample LVRA-BIA-MW-2-PDB-080119 at 08:30.
- Sample LVRA-BIA-MW-2-080119 collected at 09:30.

Equipment used:

- YSI ProDSS (FA03699) with Flow through cell
- QED MP50 Compressor/Controller (FA01037)
- QED Sample Pro Pump 1.75" (SN1200)
- Solinst Water Level Meter Model 101



95 Perry Street, Suite 300  
 Buffalo, New York 14203  
 p: 716.206.5100  
 f: 716.206.5199  
[w: www.watts-ae.com](http://www.watts-ae.com)

## WELL DEVELOPMENT/PURGING LOG

**PROJECT TITLE :** Little Valley Site, MNA Program  
**PROJECT NUMBER :** 1202501 NYSDEC Site Code 905026  
**STAFF :** Matthew E. Holquist & Mike Gerber  
**DATE :** Thursday, August 1, 2019

WELL NUMBER :	LVRA-CCA-MW3	WELL Diameter	VOL GAL/FT
1. TOTAL CASING AND SCREEN LENGHT (ft) :	38.60	1"	0.04
2. CASING INTERNAL DIAMETER (in) :	4	2"	0.16
3. DEPTH TO WATER (ft.) :	22.18	3"	0.37
4. WATER COLUMN (ft):	16.42	4"	0.65
5. VOLUME OF WATER IN CASING (GAL.):	10.67	5"	1.02
		6"	1.47
		8"	2.61

Begin purge at 14:18, water flow at 14:26.

PARAMETERS	TIME						
	14:31	14:36	14:41	14:46	14:51	14:56	15:01
WATER LEVEL (ft)	23.80	23.28	23.65	23.90	24.24	24.50	24.82
VOLUME PURGED INTERVAL (mL)	2000	2000	2000	2000	2000	2000	2000
VOLUME PURGED CUMULATIVE TOTAL (L)	2.0	4.0	6.0	8.0	10.0	12.0	14.0
TEMPERATURE (°C)	10.2	9.9	10.0	9.9	9.8	9.8	9.8
DISSOLVED OXYGEN (%)	42.1	41.1	40.5	40.4	40.6	40.8	41.4
CONDUCTIVITY (ms/cm)	0.377	0.378	0.377	0.378	0.378	0.378	0.380
pH	7.71	7.69	7.68	7.67	7.66	7.66	7.64
ORP (mV)	150.1	149.5	146.4	139.8	133.6	127.6	125.3
TURBIDITY (NTU)	15.1	13.6	14.2	20.0	19.1	18.2	17.9

**COMMENTS :**

- Sample LVRA-CCA-MW3-PDB-080119 at 13:45.
- Sample LVRA-CCA-MW3-080119 collected at 15:10.

Equipment used:

- YSI ProDSS (FA03699) with Flow through cell
- QED MP50 Compressor/Controller (FA01037)
- QED Sample Pro Pump 1.75" (SN1200)
- Solinst Water Level Meter Model 101



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---

## ATTACHMENT C

Laboratory Reports

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## ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo  
10 Hazelwood Drive  
Amherst, NY 14228-2298  
Tel: (716)691-2600

Laboratory Job ID: 480-154788-1  
Client Project/Site: Little Valley #905026

For:  
New York State D.E.C.  
625 Broadway 9th Floor  
Albany, New York 12233-7258

Attn: George Momberger



Authorized for release by:  
6/28/2019 9:53:21 AM

Joe Giacomazza, Project Management Assistant II  
[joe.giacomazza@testamericainc.com](mailto:joe.giacomazza@testamericainc.com)

Designee for

Orlette Johnson, Senior Project Manager  
(484)685-0864  
[orlette.johnson@testamericainc.com](mailto:orlette.johnson@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



---

Joe Giacomazza  
Project Management Assistant II  
6/28/2019 9:53:21 AM



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# Definitions/Glossary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154788-1

## Qualifiers

### LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154788-1

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**Job ID: 480-154788-1**

---

**Laboratory: Eurofins TestAmerica, Buffalo**

## Narrative

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**Job Narrative**  
**480-154788-1**

## Comments

No additional comments.

## Receipt

The samples were received on 6/11/2019 6:21 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.1° C.

## GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## LCMS

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154788-1

**Client Sample ID: WSA-PZ-45D-061119**

**Lab Sample ID: 480-154788-1**

No Detections.

**Client Sample ID: FIELD BLANK-061119**

**Lab Sample ID: 480-154788-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	1.5	J	1.6	0.49	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo



# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154788-1

**Client Sample ID: WSA-PZ-45D-061119**

**Lab Sample ID: 480-154788-1**

Date Collected: 06/11/19 15:15

Matrix: Water

Date Received: 06/11/19 18:21

**Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		06/14/19 06:48	06/14/19 22:36	1
<b>Isotope Dilution</b>							<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>1,4-Dioxane-d8</i>	27		15 - 110				06/14/19 06:48	06/14/19 22:36	1

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.7	0.83	ng/L		06/13/19 12:05	06/21/19 09:32	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	0.52	ng/L		06/13/19 12:05	06/21/19 09:32	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	0.63	ng/L		06/13/19 12:05	06/21/19 09:32	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.75	ng/L		06/13/19 12:05	06/21/19 09:32	1
Perfluorooctanoic acid (PFOA)	ND		1.7	0.52	ng/L		06/13/19 12:05	06/21/19 09:32	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.22	ng/L		06/13/19 12:05	06/21/19 09:32	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.64	ng/L		06/13/19 12:05	06/21/19 09:32	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.44	ng/L		06/13/19 12:05	06/21/19 09:32	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.49	ng/L		06/13/19 12:05	06/21/19 09:32	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.50	ng/L		06/13/19 12:05	06/21/19 09:32	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.76	ng/L		06/13/19 12:05	06/21/19 09:32	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.41	ng/L		06/13/19 12:05	06/21/19 09:32	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.66	ng/L		06/13/19 12:05	06/21/19 09:32	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.79	ng/L		06/13/19 12:05	06/21/19 09:32	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	0.51	ng/L		06/13/19 12:05	06/21/19 09:32	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.75	ng/L		06/13/19 12:05	06/21/19 09:32	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		17	1.4	ng/L		06/13/19 12:05	06/21/19 09:32	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		17	1.2	ng/L		06/13/19 12:05	06/21/19 09:32	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		17	3.8	ng/L		06/13/19 12:05	06/21/19 09:32	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		17	2.4	ng/L		06/13/19 12:05	06/21/19 09:32	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.7	0.53	ng/L		06/13/19 12:05	06/21/19 09:32	1
<b>Isotope Dilution</b>							<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>18O2 PFHxS</i>	102		50 - 150				06/13/19 12:05	06/21/19 09:32	1
<i>13C2 PFHxA</i>	88		50 - 150				06/13/19 12:05	06/21/19 09:32	1
<i>13C4 PFOS</i>	77		50 - 150				06/13/19 12:05	06/21/19 09:32	1
<i>13C3 PFBS</i>	82		50 - 150				06/13/19 12:05	06/21/19 09:32	1
<i>13C8 FOSA</i>	65		25 - 150				06/13/19 12:05	06/21/19 09:32	1
<i>M2-6:2 FTS</i>	120		25 - 150				06/13/19 12:05	06/21/19 09:32	1
<i>13C2 PFDoA</i>	76		50 - 150				06/13/19 12:05	06/21/19 09:32	1
<i>d5-NEtFOSAA</i>	75		50 - 150				06/13/19 12:05	06/21/19 09:32	1
<i>13C5 PFPeA</i>	83		25 - 150				06/13/19 12:05	06/21/19 09:32	1
<i>13C2 PFTeDA</i>	82		50 - 150				06/13/19 12:05	06/21/19 09:32	1
<i>13C5 PFNA</i>	79		50 - 150				06/13/19 12:05	06/21/19 09:32	1
<i>13C2 PFDA</i>	76		50 - 150				06/13/19 12:05	06/21/19 09:32	1
<i>d3-NMeFOSAA</i>	64		50 - 150				06/13/19 12:05	06/21/19 09:32	1
<i>13C4 PFOA</i>	91		50 - 150				06/13/19 12:05	06/21/19 09:32	1
<i>13C2 PFUnA</i>	79		50 - 150				06/13/19 12:05	06/21/19 09:32	1
<i>13C4 PFHpA</i>	86		50 - 150				06/13/19 12:05	06/21/19 09:32	1
<i>M2-8:2 FTS</i>	100		25 - 150				06/13/19 12:05	06/21/19 09:32	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154788-1

**Client Sample ID: WSA-PZ-45D-061119**

**Lab Sample ID: 480-154788-1**

**Date Collected: 06/11/19 15:15**

**Matrix: Water**

**Date Received: 06/11/19 18:21**

**Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	81		25 - 150	06/13/19 12:05	06/21/19 09:32	1

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# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154788-1

**Client Sample ID: FIELD BLANK-061119**

**Lab Sample ID: 480-154788-2**

**Date Collected: 06/11/19 15:30**

**Matrix: Water**

**Date Received: 06/11/19 18:21**

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.6	0.81	ng/L		06/13/19 12:05	06/21/19 09:48	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.51	ng/L		06/13/19 12:05	06/21/19 09:48	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.61	ng/L		06/13/19 12:05	06/21/19 09:48	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.74	ng/L		06/13/19 12:05	06/21/19 09:48	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.51	ng/L		06/13/19 12:05	06/21/19 09:48	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.22	ng/L		06/13/19 12:05	06/21/19 09:48	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.62	ng/L		06/13/19 12:05	06/21/19 09:48	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.43	ng/L		06/13/19 12:05	06/21/19 09:48	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.48	ng/L		06/13/19 12:05	06/21/19 09:48	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.49	ng/L		06/13/19 12:05	06/21/19 09:48	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.74	ng/L		06/13/19 12:05	06/21/19 09:48	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.40	ng/L		06/13/19 12:05	06/21/19 09:48	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.65	ng/L		06/13/19 12:05	06/21/19 09:48	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.6	0.77	ng/L		06/13/19 12:05	06/21/19 09:48	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>1.5 J</b>		1.6	0.49	ng/L		06/13/19 12:05	06/21/19 09:48	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.73	ng/L		06/13/19 12:05	06/21/19 09:48	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		16	1.4	ng/L		06/13/19 12:05	06/21/19 09:48	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		16	1.2	ng/L		06/13/19 12:05	06/21/19 09:48	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		16	3.7	ng/L		06/13/19 12:05	06/21/19 09:48	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		16	2.3	ng/L		06/13/19 12:05	06/21/19 09:48	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6	0.52	ng/L		06/13/19 12:05	06/21/19 09:48	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	110		50 - 150				06/13/19 12:05	06/21/19 09:48	1
13C2 PFHxA	101		50 - 150				06/13/19 12:05	06/21/19 09:48	1
13C4 PFOS	83		50 - 150				06/13/19 12:05	06/21/19 09:48	1
13C3 PFBS	83		50 - 150				06/13/19 12:05	06/21/19 09:48	1
13C8 FOSA	61		25 - 150				06/13/19 12:05	06/21/19 09:48	1
M2-6:2 FTS	122		25 - 150				06/13/19 12:05	06/21/19 09:48	1
13C2 PFDoA	84		50 - 150				06/13/19 12:05	06/21/19 09:48	1
d5-NEtFOSAA	68		50 - 150				06/13/19 12:05	06/21/19 09:48	1
13C5 PFPeA	98		25 - 150				06/13/19 12:05	06/21/19 09:48	1
13C2 PFTeDA	77		50 - 150				06/13/19 12:05	06/21/19 09:48	1
13C5 PFNA	96		50 - 150				06/13/19 12:05	06/21/19 09:48	1
13C2 PFDA	101		50 - 150				06/13/19 12:05	06/21/19 09:48	1
d3-NMeFOSAA	66		50 - 150				06/13/19 12:05	06/21/19 09:48	1
13C4 PFOA	100		50 - 150				06/13/19 12:05	06/21/19 09:48	1
13C2 PFUnA	95		50 - 150				06/13/19 12:05	06/21/19 09:48	1
13C4 PFHpA	96		50 - 150				06/13/19 12:05	06/21/19 09:48	1
M2-8:2 FTS	101		25 - 150				06/13/19 12:05	06/21/19 09:48	1
13C4 PFBA	68		25 - 150				06/13/19 12:05	06/21/19 09:48	1

Eurofins TestAmerica, Buffalo

# Isotope Dilution Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154788-1

## Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (15-110)
480-154788-1	WSA-PZ-45D-061119	27
LCS 480-477730/2-A	Lab Control Sample	28
MB 480-477730/1-A	Method Blank	28

#### Surrogate Legend

DXE = 1,4-Dioxane-d8

## Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxS (50-150)	PFHxA (50-150)	PFOS (50-150)	3C3-PFBs (50-150)	PFOSA (25-150)	M262FTS (25-150)	PFDaA (50-150)	d5-NEtFOSAA (50-150)
480-154788-1	WSA-PZ-45D-061119	102	88	77	82	65	120	76	75
480-154788-2	FIELD BLANK-061119	110	101	83	83	61	122	84	68
LCS 200-144041/2-A	Lab Control Sample	104	104	91	105	66	119	101	102
MB 200-144041/1-A	Method Blank	113	95	89	130	65	134	97	106

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFPeA (25-150)	PFTDA (50-150)	PFNA (50-150)	PFDA (50-150)	-NMeFOSAA (50-150)	PFOA (50-150)	PFUnA (50-150)	PFHpA (50-150)
480-154788-1	WSA-PZ-45D-061119	83	82	79	76	64	91	79	86
480-154788-2	FIELD BLANK-061119	98	77	96	101	66	100	95	96
LCS 200-144041/2-A	Lab Control Sample	102	96	99	103	98	100	114	97
MB 200-144041/1-A	Method Blank	94	100	101	103	93	100	108	99

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M282FTS (25-150)	PFBA (25-150)
480-154788-1	WSA-PZ-45D-061119	100	81
480-154788-2	FIELD BLANK-061119	101	68
LCS 200-144041/2-A	Lab Control Sample	146	79
MB 200-144041/1-A	Method Blank	148	76

#### Surrogate Legend

PFHxS = 18O2 PFHxS  
 PFHxA = 13C2 PFHxA  
 PFOS = 13C4 PFOS  
 13C3-PFBs = 13C3 PFBS  
 PFOSA = 13C8 FOSA  
 M262FTS = M2-6:2 FTS  
 PFDaA = 13C2 PFDaA  
 d5-NEtFOSAA = d5-NEtFOSAA  
 PFPeA = 13C5 PFPeA  
 PFTDA = 13C2 PFTeDA  
 PFNA = 13C5 PFNA  
 PFDA = 13C2 PFDA  
 d3-NMeFOSAA = d3-NMeFOSAA  
 PFOA = 13C4 PFOA  
 PFUnA = 13C2 PFUnA  
 PFHpA = 13C4 PFHpA  
 M282FTS = M2-8:2 FTS

# Isotope Dilution Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026  
PFBA = 13C4 PFBA

Job ID: 480-154788-1

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# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154788-1

## Method: 8270D SIM ID - Semivolatle Organic Compounds (GC/MS SIM / Isotope Dilution)

**Lab Sample ID: MB 480-477730/1-A**  
**Matrix: Water**  
**Analysis Batch: 477902**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 477730**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		06/14/19 06:48	06/14/19 18:58	1
Isotope Dilution	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	28		15 - 110				06/14/19 06:48	06/14/19 18:58	1

**Lab Sample ID: LCS 480-477730/2-A**  
**Matrix: Water**  
**Analysis Batch: 477902**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 477730**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,4-Dioxane	1.00	1.12		ug/L		112	40 - 140
Isotope Dilution	%Recovery	LCS Qualifier	Limits				
1,4-Dioxane-d8	28		15 - 110				

## Method: 537 (modified) - Fluorinated Alkyl Substances

**Lab Sample ID: MB 200-144041/1-A**  
**Matrix: Water**  
**Analysis Batch: 144296**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 144041**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	1.0	ng/L		06/13/19 12:05	06/21/19 03:58	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.63	ng/L		06/13/19 12:05	06/21/19 03:58	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.76	ng/L		06/13/19 12:05	06/21/19 03:58	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.91	ng/L		06/13/19 12:05	06/21/19 03:58	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.63	ng/L		06/13/19 12:05	06/21/19 03:58	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		06/13/19 12:05	06/21/19 03:58	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.77	ng/L		06/13/19 12:05	06/21/19 03:58	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.53	ng/L		06/13/19 12:05	06/21/19 03:58	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.59	ng/L		06/13/19 12:05	06/21/19 03:58	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	0.60	ng/L		06/13/19 12:05	06/21/19 03:58	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.92	ng/L		06/13/19 12:05	06/21/19 03:58	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.49	ng/L		06/13/19 12:05	06/21/19 03:58	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		06/13/19 12:05	06/21/19 03:58	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.95	ng/L		06/13/19 12:05	06/21/19 03:58	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.61	ng/L		06/13/19 12:05	06/21/19 03:58	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.90	ng/L		06/13/19 12:05	06/21/19 03:58	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		20	1.7	ng/L		06/13/19 12:05	06/21/19 03:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		20	1.5	ng/L		06/13/19 12:05	06/21/19 03:58	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		20	4.6	ng/L		06/13/19 12:05	06/21/19 03:58	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		20	2.9	ng/L		06/13/19 12:05	06/21/19 03:58	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0	0.64	ng/L		06/13/19 12:05	06/21/19 03:58	1

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154788-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

<i>Isotope Dilution</i>	<i>MB</i> <i>%Recovery</i>	<i>MB</i> <i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	113		50 - 150	06/13/19 12:05	06/21/19 03:58	1
13C2 PFHxA	95		50 - 150	06/13/19 12:05	06/21/19 03:58	1
13C4 PFOS	89		50 - 150	06/13/19 12:05	06/21/19 03:58	1
13C3 PFBS	130		50 - 150	06/13/19 12:05	06/21/19 03:58	1
13C8 FOSA	65		25 - 150	06/13/19 12:05	06/21/19 03:58	1
M2-6:2 FTS	134		25 - 150	06/13/19 12:05	06/21/19 03:58	1
13C2 PFDoA	97		50 - 150	06/13/19 12:05	06/21/19 03:58	1
d5-NEtFOSAA	106		50 - 150	06/13/19 12:05	06/21/19 03:58	1
13C5 PFPeA	94		25 - 150	06/13/19 12:05	06/21/19 03:58	1
13C2 PFTeDA	100		50 - 150	06/13/19 12:05	06/21/19 03:58	1
13C5 PFNA	101		50 - 150	06/13/19 12:05	06/21/19 03:58	1
13C2 PFDA	103		50 - 150	06/13/19 12:05	06/21/19 03:58	1
d3-NMeFOSAA	93		50 - 150	06/13/19 12:05	06/21/19 03:58	1
13C4 PFOA	100		50 - 150	06/13/19 12:05	06/21/19 03:58	1
13C2 PFUnA	108		50 - 150	06/13/19 12:05	06/21/19 03:58	1
13C4 PFHpA	99		50 - 150	06/13/19 12:05	06/21/19 03:58	1
M2-8:2 FTS	148		25 - 150	06/13/19 12:05	06/21/19 03:58	1
13C4 PFBA	76		25 - 150	06/13/19 12:05	06/21/19 03:58	1

**Lab Sample ID: LCS 200-144041/2-A**

**Matrix: Water**

**Analysis Batch: 144296**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 144041**

<i>Analyte</i>	<i>Spike</i> <i>Added</i>	<i>LCS</i> <i>Result</i>	<i>LCS</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>Limits</i>
Perfluorobutanoic acid (PFBA)	40.0	38.4		ng/L		96	50 - 150
Perfluoropentanoic acid (PFPeA)	40.0	45.1		ng/L		113	50 - 150
Perfluorohexanoic acid (PFHxA)	40.0	40.0		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	40.0	45.0		ng/L		113	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	45.3		ng/L		113	70 - 130
Perfluorononanoic acid (PFNA)	40.0	44.2		ng/L		110	70 - 130
Perfluorodecanoic acid (PFDA)	40.0	45.2		ng/L		113	70 - 130
Perfluoroundecanoic acid (PFUnA)	40.0	39.6		ng/L		99	70 - 130
Perfluorododecanoic acid (PFDoA)	40.0	40.6		ng/L		101	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	42.0		ng/L		105	70 - 130
Perfluorotetradecanoic acid (PFTeA)	40.0	43.6		ng/L		109	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	35.9		ng/L		102	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.4	42.4		ng/L		117	70 - 130
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	47.8		ng/L		125	50 - 150
Perfluorooctanesulfonic acid (PFOS)	37.1	42.2		ng/L		114	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	47.9		ng/L		124	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	41.0		ng/L		102	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	43.9		ng/L		110	70 - 130
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	49.2		ng/L		130	50 - 150

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
 Project/Site: Little Valley #905026

Job ID: 480-154788-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LCS 200-144041/2-A**  
**Matrix: Water**  
**Analysis Batch: 144296**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 144041**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	40.6		ng/L		106	50 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	45.0		ng/L		112	50 - 150

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
18O2 PFHxS	104		50 - 150
13C2 PFHxA	104		50 - 150
13C4 PFOS	91		50 - 150
13C3 PFBS	105		50 - 150
13C8 FOSA	66		25 - 150
M2-6:2 FTS	119		25 - 150
13C2 PFDoA	101		50 - 150
d5-NEtFOSAA	102		50 - 150
13C5 PFPeA	102		25 - 150
13C2 PFTeDA	96		50 - 150
13C5 PFNA	99		50 - 150
13C2 PFDA	103		50 - 150
d3-NMeFOSAA	98		50 - 150
13C4 PFOA	100		50 - 150
13C2 PFUnA	114		50 - 150
13C4 PFHpA	97		50 - 150
M2-8:2 FTS	146		25 - 150
13C4 PFBA	79		25 - 150



# QC Association Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154788-1

## GC/MS Semi VOA

### Prep Batch: 477730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-154788-1	WSA-PZ-45D-061119	Total/NA	Water	3510C	
MB 480-477730/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-477730/2-A	Lab Control Sample	Total/NA	Water	3510C	

### Analysis Batch: 477902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-154788-1	WSA-PZ-45D-061119	Total/NA	Water	8270D SIM ID	477730
MB 480-477730/1-A	Method Blank	Total/NA	Water	8270D SIM ID	477730
LCS 480-477730/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	477730

## LCMS

### Prep Batch: 144041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-154788-1	WSA-PZ-45D-061119	Total/NA	Water	3535	
480-154788-2	FIELD BLANK-061119	Total/NA	Water	3535	
MB 200-144041/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-144041/2-A	Lab Control Sample	Total/NA	Water	3535	

### Analysis Batch: 144296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-154788-1	WSA-PZ-45D-061119	Total/NA	Water	537 (modified)	144041
480-154788-2	FIELD BLANK-061119	Total/NA	Water	537 (modified)	144041
MB 200-144041/1-A	Method Blank	Total/NA	Water	537 (modified)	144041
LCS 200-144041/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	144041

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154788-1

**Client Sample ID: WSA-PZ-45D-061119**

**Lab Sample ID: 480-154788-1**

**Date Collected: 06/11/19 15:15**

**Matrix: Water**

**Date Received: 06/11/19 18:21**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			477730	06/14/19 06:48	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	477902	06/14/19 22:36	RJS	TAL BUF
Total/NA	Prep	3535			144041	06/13/19 12:05	TPB	TAL BUR
Total/NA	Analysis	537 (modified)		1	144296	06/21/19 09:32	BWC	TAL BUR

**Client Sample ID: FIELD BLANK-061119**

**Lab Sample ID: 480-154788-2**

**Date Collected: 06/11/19 15:30**

**Matrix: Water**

**Date Received: 06/11/19 18:21**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			144041	06/13/19 12:05	TPB	TAL BUR
Total/NA	Analysis	537 (modified)		1	144296	06/21/19 09:48	BWC	TAL BUR

## Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

# Accreditation/Certification Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154788-1

## Laboratory: Eurofins TestAmerica, Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-20

## Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP		L2336	02-25-20
ANAB	DoD		L2336	02-25-20
Connecticut	State Program	1	PH-0751	09-30-19
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-01-20
Florida	NELAP	4	E87467	06-30-19 *
Minnesota	NELAP	5	050-999-436	12-31-19
New Hampshire	NELAP	1	2006	12-18-19
New Jersey	NELAP	2	VT972	06-30-19 *
New York	NELAP	2	10391	04-01-20
Pennsylvania	NELAP	3	68-00489	04-30-20
Pennsylvania	NELAP		68-00489	04-30-20
Rhode Island	State Program	1	LAO00298	12-30-19
US Fish & Wildlife	Federal		LE-058448-0	07-31-19
USDA	Federal		P330-11-00093	07-24-20
Vermont	State Program	1	VT-4000	12-31-19
Virginia	NELAP	3	460209	12-14-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Buffalo

# Method Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154788-1

Method	Method Description	Protocol	Laboratory
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL BUR
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
3535	Solid-Phase Extraction (SPE)	SW846	TAL BUR

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

# Sample Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154788-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-154788-1	WSA-PZ-45D-061119	Water	06/11/19 15:15	06/11/19 18:21	
480-154788-2	FIELD BLANK-061119	Water	06/11/19 15:30	06/11/19 18:21	

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Regulatory Program:  DW  NPDES  RCRA  Other: State

Project Manager: <u>Steve Choire</u> Lab Contact: <u>Matt Helquist</u> Carrier: <u>06/11/2019</u> COC No.: <u>1</u> of <u>1</u> COCs Tell/Fax: _____		Site Contact: <u>Steve Choire</u> Date: <u>06/11/2019</u>	
Company Name: <u>NYSDEC/AELOM/Walts</u> Address: <u>95 Perry St, Suite 300</u> City/State/Zip: <u>Buffalo, NY 14203</u> Phone: <u>716-206-5100</u> Fax: <u>716-206-5199</u> Project Name: <u>LITTLE VALLEY, S.H.</u> Site: <u>NYSDEC # 1905026</u> P O # _____		Sampler: <u>MATT HELQUIST</u> For Lab Use Only: (MATERIALS ONLY)	
Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below: <u>Standard</u> <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Barcode:  480-154788 Chain of Custody	
Sample Date <u>6/11/19 15:15</u> <u>6/11/19 15:30</u>	Sample Time <u>15:15</u> <u>15:30</u>	Sample Type (C-Comp, G-Grab) <u>G</u> <u>-</u>	Matrix <u>Water</u> <u>Water</u>
Sample Identification <u>WSA-PZ-45D-061119</u> <u>Field Blank-061119</u>	# of Cont. <u>4</u> <u>2</u>	Filtered Sample (Y/N) <u>N</u> <u>N</u>	Perform MS/MSD (Y/N) <u>X</u> <u>X</u>
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____ Possible Hazard Identification: _____ Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.		Sample Specific Notes: _____ _____ _____	
Special Instructions/QC Requirements & Comments: _____ _____		Disposal by Lab <input checked="" type="checkbox"/> Return to Client <input type="checkbox"/> Archive for _____ Months <input type="checkbox"/>	
Custody Seal No.: _____ Relinquished by: <u>Michelle Del...</u> Relinquished by: _____ Relinquished by: _____	Date/Time: <u>6/11/19</u> Date/Time: _____ Date/Time: _____	Cooler Temp. (°C): Obs'd: _____    Corrd: _____ Received by: <u>Paul Baryant</u> Received by: _____ Received in Laboratory by: _____	Date/Time: <u>6/11/19 1821</u> Date/Time: _____ Date/Time: _____





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THE LEADER IN ENVIRONMENTAL TESTING

# Temperature Controlled



**IF THIS SHIPMENT IS DELAYED IN TRANSIT,  
STORE REFRIGERATED (2° TO 8° C / 36° TO 47°F)**

TAL-0090(1016)

ORIGIN ID:DKKA (716) 691-2600  
CHAR BRONSON  
TEST AMERICA  
10 HAZELWOOD

SHIP DATE: 12 JUN 19  
ACTWGT: 10.05 LB  
CAD: 846654/CAF3211  
DIMS: 15x13x10 IN

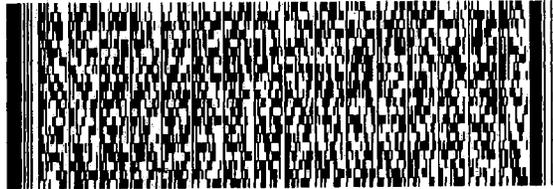
AMHERST, NY 14228  
UNITED STATES US

BILL RECIPIENT

**TO SAMPLE MGT.  
TA BURLINGTON  
30 COMMUNITY DRIVE  
SUITE 11  
SOUTH BURLINGTON VT 05403**

(802) 860-1900  
DEPT: SAMPLE CONTROL

REF: BURLINGTON



**FedEx**  
Express



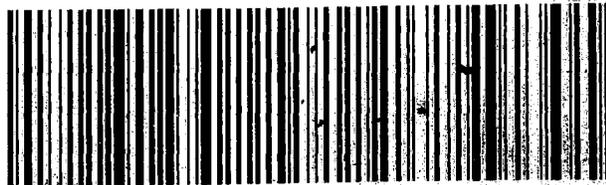
RT 916  
FZ 917  
1  
10:30  
9761  
06.13  
A

TRK# 0201 4276 0719 9761

**THU - 13 JUN 10:30A  
PRIORITY OVERNIGHT**

# XH BTVA

**05403  
VT-US BTV**



*Handwritten initials/signature.*

## Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-154788-1

**Login Number: 154788**

**List Source: Eurofins TestAmerica, Buffalo**

**List Number: 1**

**Creator: Harper, Marcus D**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AE
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

## Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-154788-1

**Login Number: 154788**

**List Number: 2**

**Creator: McNabb, Robert W**

**List Source: Eurofins TestAmerica, Burlington**

**List Creation: 06/13/19 11:31 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo  
10 Hazelwood Drive  
Amherst, NY 14228-2298  
Tel: (716)691-2600

Laboratory Job ID: 480-154881-1  
Client Project/Site: Little Valley #905026

For:  
New York State D.E.C.  
625 Broadway 9th Floor  
Albany, New York 12233-7258

Attn: George Momberger



Authorized for release by:  
7/15/2019 3:21:32 PM

Joe Giacomazza, Project Management Assistant II  
[joe.giacomazza@testamericainc.com](mailto:joe.giacomazza@testamericainc.com)

Designee for

Orlette Johnson, Senior Project Manager  
(484)685-0864  
[orlette.johnson@testamericainc.com](mailto:orlette.johnson@testamericainc.com)

### LINKS

Review your project  
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Have a Question?



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*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



---

Joe Giacomazza  
Project Management Assistant II  
7/15/2019 3:21:32 PM



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# Definitions/Glossary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154881-1

## Qualifiers

### LCMS

Qualifier	Qualifier Description
*	Isotope Dilution analyte is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154881-1

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## Job ID: 480-154881-1

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### Laboratory: Eurofins TestAmerica, Buffalo

#### Narrative

#### Job Narrative 480-154881-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 6/12/2019 7:52 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0° C.

#### GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### LCMS

Method(s) 537 (modified): 13C4 PFBA Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: (CCV 200-144448/5). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method(s) 537 (modified): 13C3 PFBS, M2-6:2 FTS, 13C5 PFPeA, 13C4 PFBA, 13C4 PFOS and 18O2 PFHxS Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: (CCV 200-144448/18). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method(s) 537 (modified): The continuing calibration verification (CCV) associated with batch 200-144448 recovered above the upper control limit for Perfluorobutanoic acid (PFBA). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 537 (modified): 18O2 PFHxS Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following samples: B1A-MW-6-061219 (480-154881-4) and (MB 200-144281/1-A). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method(s) 537 (modified): 13C3 PFBS Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: CCA-MW-10-061219 (480-154881-1). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method(s) 537 (modified): 18O2 PFHxS and 13C4 PFBA Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following samples: RINSATE BLANK-061219 (480-154881-2), FIELD BLANK-061219 (480-154881-3) and DUP-061219 (480-154881-5). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method(s) 537 (modified): A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: The associated samples are reported within windows where the CCV for Perfluorobutanoic acid (PFBA) was below acceptance criteria. Since all samples had area responses less than the response associated with the detection limit associated with Perfluorobutanoic acid (PFBA), the results are being reported as non-detects.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154881-1

## Client Sample ID: CCA-MW-10-061219

Lab Sample ID: 480-154881-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	0.84	J	1.6	0.50	ng/L	1		537 (modified)	Total/NA

## Client Sample ID: RINSATE BLANK-061219

Lab Sample ID: 480-154881-2

No Detections.

## Client Sample ID: FIELD BLANK-061219

Lab Sample ID: 480-154881-3

No Detections.

## Client Sample ID: B1A-MW-6-061219

Lab Sample ID: 480-154881-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	1.8		1.6	0.51	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.6		1.6	0.51	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.3		1.6	0.50	ng/L	1		537 (modified)	Total/NA

## Client Sample ID: DUP-061219

Lab Sample ID: 480-154881-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	0.55	J	1.7	0.52	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.88	J	1.7	0.50	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154881-1

**Client Sample ID: CCA-MW-10-061219**

**Lab Sample ID: 480-154881-1**

Date Collected: 06/12/19 15:35

Matrix: Water

Date Received: 06/12/19 19:52

**Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		06/14/19 06:48	06/15/19 00:13	1
<i>Isotope Dilution</i>		<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>			<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,4-Dioxane-d8		28		15 - 110			06/14/19 06:48	06/15/19 00:13	1

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.6	0.82	ng/L		06/20/19 08:13	06/25/19 13:51	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.52	ng/L		06/20/19 08:13	06/25/19 13:51	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.63	ng/L		06/20/19 08:13	06/25/19 13:51	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.75	ng/L		06/20/19 08:13	06/25/19 13:51	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.52	ng/L		06/20/19 08:13	06/25/19 13:51	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.22	ng/L		06/20/19 08:13	06/25/19 13:51	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.63	ng/L		06/20/19 08:13	06/25/19 13:51	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.44	ng/L		06/20/19 08:13	06/25/19 13:51	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.49	ng/L		06/20/19 08:13	06/25/19 13:51	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.49	ng/L		06/20/19 08:13	06/25/19 13:51	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.76	ng/L		06/20/19 08:13	06/25/19 13:51	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.40	ng/L		06/20/19 08:13	06/25/19 13:51	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.66	ng/L		06/20/19 08:13	06/25/19 13:51	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.6	0.78	ng/L		06/20/19 08:13	06/25/19 13:51	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>0.84</b>	<b>J</b>	1.6	0.50	ng/L		06/20/19 08:13	06/25/19 13:51	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.74	ng/L		06/20/19 08:13	06/25/19 13:51	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		16	1.4	ng/L		06/20/19 08:13	06/25/19 13:51	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		16	1.2	ng/L		06/20/19 08:13	06/25/19 13:51	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		16	3.8	ng/L		06/20/19 08:13	06/25/19 13:51	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		16	2.4	ng/L		06/20/19 08:13	06/25/19 13:51	1
Perfluorooctanesulfonamide (PFOSA)	ND		8.2	8.2	ng/L		06/20/19 08:13	06/25/19 13:51	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	146		50 - 150				06/20/19 08:13	06/25/19 13:51	1
13C2 PFHxA	73		50 - 150				06/20/19 08:13	06/25/19 13:51	1
13C4 PFOS	97		50 - 150				06/20/19 08:13	06/25/19 13:51	1
13C3 PFBS	159	*	50 - 150				06/20/19 08:13	06/25/19 13:51	1
13C8 FOSA	82		25 - 150				06/20/19 08:13	06/25/19 13:51	1
M2-6:2 FTS	121		25 - 150				06/20/19 08:13	06/25/19 13:51	1
13C2 PFDoA	66		50 - 150				06/20/19 08:13	06/25/19 13:51	1
d5-NEtFOSAA	74		50 - 150				06/20/19 08:13	06/25/19 13:51	1
13C5 PFPeA	100		25 - 150				06/20/19 08:13	06/25/19 13:51	1
13C2 PFTeDA	62		50 - 150				06/20/19 08:13	06/25/19 13:51	1
13C5 PFNA	69		50 - 150				06/20/19 08:13	06/25/19 13:51	1
13C2 PFDA	76		50 - 150				06/20/19 08:13	06/25/19 13:51	1
d3-NMeFOSAA	64		50 - 150				06/20/19 08:13	06/25/19 13:51	1
13C4 PFOA	74		50 - 150				06/20/19 08:13	06/25/19 13:51	1
13C2 PFUnA	70		50 - 150				06/20/19 08:13	06/25/19 13:51	1
13C4 PFHpA	72		50 - 150				06/20/19 08:13	06/25/19 13:51	1
M2-8:2 FTS	85		25 - 150				06/20/19 08:13	06/25/19 13:51	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154881-1

**Client Sample ID: CCA-MW-10-061219**

**Lab Sample ID: 480-154881-1**

Date Collected: 06/12/19 15:35

Matrix: Water

Date Received: 06/12/19 19:52

**Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	137		25 - 150	06/20/19 08:13	06/25/19 13:51	1

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# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154881-1

**Client Sample ID: RINSATE BLANK-061219**

**Lab Sample ID: 480-154881-2**

Date Collected: 06/12/19 16:05

Matrix: Water

Date Received: 06/12/19 19:52

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.7	0.85	ng/L		06/20/19 08:13	06/25/19 14:07	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	0.54	ng/L		06/20/19 08:13	06/25/19 14:07	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	0.65	ng/L		06/20/19 08:13	06/25/19 14:07	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.77	ng/L		06/20/19 08:13	06/25/19 14:07	1
Perfluorooctanoic acid (PFOA)	ND		1.7	0.54	ng/L		06/20/19 08:13	06/25/19 14:07	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.23	ng/L		06/20/19 08:13	06/25/19 14:07	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.65	ng/L		06/20/19 08:13	06/25/19 14:07	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.45	ng/L		06/20/19 08:13	06/25/19 14:07	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.50	ng/L		06/20/19 08:13	06/25/19 14:07	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.51	ng/L		06/20/19 08:13	06/25/19 14:07	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.78	ng/L		06/20/19 08:13	06/25/19 14:07	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.42	ng/L		06/20/19 08:13	06/25/19 14:07	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.68	ng/L		06/20/19 08:13	06/25/19 14:07	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.81	ng/L		06/20/19 08:13	06/25/19 14:07	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	0.52	ng/L		06/20/19 08:13	06/25/19 14:07	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.77	ng/L		06/20/19 08:13	06/25/19 14:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		17	1.4	ng/L		06/20/19 08:13	06/25/19 14:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		17	1.3	ng/L		06/20/19 08:13	06/25/19 14:07	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		17	3.9	ng/L		06/20/19 08:13	06/25/19 14:07	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		17	2.5	ng/L		06/20/19 08:13	06/25/19 14:07	1
Perfluorooctanesulfonamide (PFOSA)	ND		8.5	8.5	ng/L		06/20/19 08:13	06/25/19 14:07	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	171	*	50 - 150				06/20/19 08:13	06/25/19 14:07	1
13C2 PFHxA	89		50 - 150				06/20/19 08:13	06/25/19 14:07	1
13C4 PFOS	106		50 - 150				06/20/19 08:13	06/25/19 14:07	1
13C3 PFBS	148		50 - 150				06/20/19 08:13	06/25/19 14:07	1
13C8 FOSA	67		25 - 150				06/20/19 08:13	06/25/19 14:07	1
M2-6:2 FTS	133		25 - 150				06/20/19 08:13	06/25/19 14:07	1
13C2 PFDoA	78		50 - 150				06/20/19 08:13	06/25/19 14:07	1
d5-NEtFOSAA	83		50 - 150				06/20/19 08:13	06/25/19 14:07	1
13C5 PFPeA	125		25 - 150				06/20/19 08:13	06/25/19 14:07	1
13C2 PFTeDA	66		50 - 150				06/20/19 08:13	06/25/19 14:07	1
13C5 PFNA	80		50 - 150				06/20/19 08:13	06/25/19 14:07	1
13C2 PFDA	89		50 - 150				06/20/19 08:13	06/25/19 14:07	1
d3-NMeFOSAA	73		50 - 150				06/20/19 08:13	06/25/19 14:07	1
13C4 PFOA	82		50 - 150				06/20/19 08:13	06/25/19 14:07	1
13C2 PFUnA	84		50 - 150				06/20/19 08:13	06/25/19 14:07	1
13C4 PFHpA	80		50 - 150				06/20/19 08:13	06/25/19 14:07	1
M2-8:2 FTS	93		25 - 150				06/20/19 08:13	06/25/19 14:07	1
13C4 PFBA	162	*	25 - 150				06/20/19 08:13	06/25/19 14:07	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154881-1

**Client Sample ID: FIELD BLANK-061219**

**Lab Sample ID: 480-154881-3**

Date Collected: 06/12/19 16:15

Matrix: Water

Date Received: 06/12/19 19:52

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.6	0.82	ng/L		06/20/19 08:13	06/25/19 14:23	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.52	ng/L		06/20/19 08:13	06/25/19 14:23	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.63	ng/L		06/20/19 08:13	06/25/19 14:23	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.75	ng/L		06/20/19 08:13	06/25/19 14:23	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.52	ng/L		06/20/19 08:13	06/25/19 14:23	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.22	ng/L		06/20/19 08:13	06/25/19 14:23	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.63	ng/L		06/20/19 08:13	06/25/19 14:23	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.44	ng/L		06/20/19 08:13	06/25/19 14:23	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.49	ng/L		06/20/19 08:13	06/25/19 14:23	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.49	ng/L		06/20/19 08:13	06/25/19 14:23	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.76	ng/L		06/20/19 08:13	06/25/19 14:23	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.40	ng/L		06/20/19 08:13	06/25/19 14:23	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.66	ng/L		06/20/19 08:13	06/25/19 14:23	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.6	0.78	ng/L		06/20/19 08:13	06/25/19 14:23	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	0.50	ng/L		06/20/19 08:13	06/25/19 14:23	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.74	ng/L		06/20/19 08:13	06/25/19 14:23	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		16	1.4	ng/L		06/20/19 08:13	06/25/19 14:23	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		16	1.2	ng/L		06/20/19 08:13	06/25/19 14:23	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		16	3.8	ng/L		06/20/19 08:13	06/25/19 14:23	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		16	2.4	ng/L		06/20/19 08:13	06/25/19 14:23	1
Perfluorooctanesulfonamide (PFOSA)	ND		8.2	8.2	ng/L		06/20/19 08:13	06/25/19 14:23	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	163	*	50 - 150				06/20/19 08:13	06/25/19 14:23	1
13C2 PFHxA	84		50 - 150				06/20/19 08:13	06/25/19 14:23	1
13C4 PFOS	113		50 - 150				06/20/19 08:13	06/25/19 14:23	1
13C3 PFBS	129		50 - 150				06/20/19 08:13	06/25/19 14:23	1
13C8 FOSA	74		25 - 150				06/20/19 08:13	06/25/19 14:23	1
M2-6:2 FTS	96		25 - 150				06/20/19 08:13	06/25/19 14:23	1
13C2 PFDoA	67		50 - 150				06/20/19 08:13	06/25/19 14:23	1
d5-NEtFOSAA	86		50 - 150				06/20/19 08:13	06/25/19 14:23	1
13C5 PFPeA	139		25 - 150				06/20/19 08:13	06/25/19 14:23	1
13C2 PFTeDA	63		50 - 150				06/20/19 08:13	06/25/19 14:23	1
13C5 PFNA	79		50 - 150				06/20/19 08:13	06/25/19 14:23	1
13C2 PFDA	81		50 - 150				06/20/19 08:13	06/25/19 14:23	1
d3-NMeFOSAA	74		50 - 150				06/20/19 08:13	06/25/19 14:23	1
13C4 PFOA	87		50 - 150				06/20/19 08:13	06/25/19 14:23	1
13C2 PFUnA	80		50 - 150				06/20/19 08:13	06/25/19 14:23	1
13C4 PFHpA	82		50 - 150				06/20/19 08:13	06/25/19 14:23	1
M2-8:2 FTS	78		25 - 150				06/20/19 08:13	06/25/19 14:23	1
13C4 PFBA	201	*	25 - 150				06/20/19 08:13	06/25/19 14:23	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154881-1

**Client Sample ID: B1A-MW-6-061219**

**Lab Sample ID: 480-154881-4**

Date Collected: 06/12/19 18:00

Matrix: Water

Date Received: 06/12/19 19:52

**Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		06/14/19 06:48	06/15/19 00:37	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,4-Dioxane-d8	29		15 - 110				06/14/19 06:48	06/15/19 00:37	1

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.6	0.82	ng/L		06/20/19 08:13	06/25/19 14:38	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>1.8</b>		1.6	0.51	ng/L		06/20/19 08:13	06/25/19 14:38	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.62	ng/L		06/20/19 08:13	06/25/19 14:38	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.74	ng/L		06/20/19 08:13	06/25/19 14:38	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>1.6</b>		1.6	0.51	ng/L		06/20/19 08:13	06/25/19 14:38	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.22	ng/L		06/20/19 08:13	06/25/19 14:38	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.63	ng/L		06/20/19 08:13	06/25/19 14:38	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.43	ng/L		06/20/19 08:13	06/25/19 14:38	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.48	ng/L		06/20/19 08:13	06/25/19 14:38	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.49	ng/L		06/20/19 08:13	06/25/19 14:38	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.75	ng/L		06/20/19 08:13	06/25/19 14:38	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.40	ng/L		06/20/19 08:13	06/25/19 14:38	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.65	ng/L		06/20/19 08:13	06/25/19 14:38	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.6	0.77	ng/L		06/20/19 08:13	06/25/19 14:38	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>2.3</b>		1.6	0.50	ng/L		06/20/19 08:13	06/25/19 14:38	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.73	ng/L		06/20/19 08:13	06/25/19 14:38	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		16	1.4	ng/L		06/20/19 08:13	06/25/19 14:38	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		16	1.2	ng/L		06/20/19 08:13	06/25/19 14:38	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		16	3.7	ng/L		06/20/19 08:13	06/25/19 14:38	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		16	2.4	ng/L		06/20/19 08:13	06/25/19 14:38	1
Perfluorooctanesulfonamide (PFOSA)	ND		8.2	8.2	ng/L		06/20/19 08:13	06/25/19 14:38	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	177	*	50 - 150				06/20/19 08:13	06/25/19 14:38	1
13C2 PFHxA	67		50 - 150				06/20/19 08:13	06/25/19 14:38	1
13C4 PFOS	116		50 - 150				06/20/19 08:13	06/25/19 14:38	1
13C3 PFBS	139		50 - 150				06/20/19 08:13	06/25/19 14:38	1
13C8 FOSA	96		25 - 150				06/20/19 08:13	06/25/19 14:38	1
M2-6:2 FTS	128		25 - 150				06/20/19 08:13	06/25/19 14:38	1
13C2 PFDoA	78		50 - 150				06/20/19 08:13	06/25/19 14:38	1
d5-NEtFOSAA	88		50 - 150				06/20/19 08:13	06/25/19 14:38	1
13C5 PFPeA	98		25 - 150				06/20/19 08:13	06/25/19 14:38	1
13C2 PFTeDA	74		50 - 150				06/20/19 08:13	06/25/19 14:38	1
13C5 PFNA	79		50 - 150				06/20/19 08:13	06/25/19 14:38	1
13C2 PFDA	86		50 - 150				06/20/19 08:13	06/25/19 14:38	1
d3-NMeFOSAA	85		50 - 150				06/20/19 08:13	06/25/19 14:38	1
13C4 PFOA	80		50 - 150				06/20/19 08:13	06/25/19 14:38	1
13C2 PFUnA	82		50 - 150				06/20/19 08:13	06/25/19 14:38	1
13C4 PFHpA	76		50 - 150				06/20/19 08:13	06/25/19 14:38	1
M2-8:2 FTS	94		25 - 150				06/20/19 08:13	06/25/19 14:38	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154881-1

**Client Sample ID: B1A-MW-6-061219**

**Lab Sample ID: 480-154881-4**

Date Collected: 06/12/19 18:00

Matrix: Water

Date Received: 06/12/19 19:52

**Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	147		25 - 150	06/20/19 08:13	06/25/19 14:38	1

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# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154881-1

**Client Sample ID: DUP-061219**

**Lab Sample ID: 480-154881-5**

Date Collected: 06/12/19 00:00

Matrix: Water

Date Received: 06/12/19 19:52

**Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		06/14/19 06:48	06/15/19 01:01	1
<i>Isotope Dilution</i>		<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>			<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,4-Dioxane-d8		30		15 - 110			06/14/19 06:48	06/15/19 01:01	1

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.7	0.83	ng/L		06/20/19 08:13	06/25/19 14:54	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	0.52	ng/L		06/20/19 08:13	06/25/19 14:54	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	0.63	ng/L		06/20/19 08:13	06/25/19 14:54	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.75	ng/L		06/20/19 08:13	06/25/19 14:54	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>0.55</b>	<b>J</b>	1.7	0.52	ng/L		06/20/19 08:13	06/25/19 14:54	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.22	ng/L		06/20/19 08:13	06/25/19 14:54	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.64	ng/L		06/20/19 08:13	06/25/19 14:54	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.44	ng/L		06/20/19 08:13	06/25/19 14:54	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.49	ng/L		06/20/19 08:13	06/25/19 14:54	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.50	ng/L		06/20/19 08:13	06/25/19 14:54	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.76	ng/L		06/20/19 08:13	06/25/19 14:54	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.40	ng/L		06/20/19 08:13	06/25/19 14:54	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.66	ng/L		06/20/19 08:13	06/25/19 14:54	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.79	ng/L		06/20/19 08:13	06/25/19 14:54	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>0.88</b>	<b>J</b>	1.7	0.50	ng/L		06/20/19 08:13	06/25/19 14:54	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.74	ng/L		06/20/19 08:13	06/25/19 14:54	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		17	1.4	ng/L		06/20/19 08:13	06/25/19 14:54	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		17	1.2	ng/L		06/20/19 08:13	06/25/19 14:54	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		17	3.8	ng/L		06/20/19 08:13	06/25/19 14:54	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		17	2.4	ng/L		06/20/19 08:13	06/25/19 14:54	1
Perfluorooctanesulfonamide (PFOSA)	ND		8.3	8.3	ng/L		06/20/19 08:13	06/25/19 14:54	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
18O2 PFHxS	169	*	50 - 150				06/20/19 08:13	06/25/19 14:54	1
13C2 PFHxA	78		50 - 150				06/20/19 08:13	06/25/19 14:54	1
13C4 PFOS	112		50 - 150				06/20/19 08:13	06/25/19 14:54	1
13C3 PFBS	147		50 - 150				06/20/19 08:13	06/25/19 14:54	1
13C8 FOSA	87		25 - 150				06/20/19 08:13	06/25/19 14:54	1
M2-6:2 FTS	136		25 - 150				06/20/19 08:13	06/25/19 14:54	1
13C2 PFDoA	71		50 - 150				06/20/19 08:13	06/25/19 14:54	1
d5-NEtFOSAA	87		50 - 150				06/20/19 08:13	06/25/19 14:54	1
13C5 PFPeA	102		25 - 150				06/20/19 08:13	06/25/19 14:54	1
13C2 PFTeDA	69		50 - 150				06/20/19 08:13	06/25/19 14:54	1
13C5 PFNA	74		50 - 150				06/20/19 08:13	06/25/19 14:54	1
13C2 PFDA	77		50 - 150				06/20/19 08:13	06/25/19 14:54	1
d3-NMeFOSAA	71		50 - 150				06/20/19 08:13	06/25/19 14:54	1
13C4 PFOA	78		50 - 150				06/20/19 08:13	06/25/19 14:54	1
13C2 PFUnA	72		50 - 150				06/20/19 08:13	06/25/19 14:54	1
13C4 PFHpA	74		50 - 150				06/20/19 08:13	06/25/19 14:54	1
M2-8:2 FTS	100		25 - 150				06/20/19 08:13	06/25/19 14:54	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154881-1

**Client Sample ID: DUP-061219**

**Lab Sample ID: 480-154881-5**

Date Collected: 06/12/19 00:00

Matrix: Water

Date Received: 06/12/19 19:52

**Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	167	*	25 - 150	06/20/19 08:13	06/25/19 14:54	1

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# Isotope Dilution Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154881-1

## Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (15-110)
480-154881-1	CCA-MW-10-061219	28
480-154881-4	B1A-MW-6-061219	29
480-154881-5	DUP-061219	30
LCS 480-477730/2-A	Lab Control Sample	28
MB 480-477730/1-A	Method Blank	28

**Surrogate Legend**

DXE = 1,4-Dioxane-d8

## Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxS (50-150)	PFHxA (50-150)	PFOS (50-150)	13C3-PFBS (50-150)	PFOSA (25-150)	M262FTS (25-150)	PFDoA (50-150)	5-NEtFOSA (50-150)
480-154881-1	CCA-MW-10-061219	146	73	97	159 *	82	121	66	74
480-154881-2	RINSATE BLANK-061219	171 *	89	106	148	67	133	78	83
480-154881-3	FIELD BLANK-061219	163 *	84	113	129	74	96	67	86
480-154881-4	B1A-MW-6-061219	177 *	67	116	139	96	128	78	88
480-154881-5	DUP-061219	169 *	78	112	147	87	136	71	87
LCS 200-144281/2-A	Lab Control Sample	141	88	113	132	90	123	81	90
MB 200-144281/1-A	Method Blank	154 *	90	104	130	70	107	80	94

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFPeA (25-150)	PFTDA (50-150)	PFNA (50-150)	PFDA (50-150)	i-NMeFOSA (50-150)	PFOA (50-150)	PFUnA (50-150)	PFHpA (50-150)
480-154881-1	CCA-MW-10-061219	100	62	69	76	64	74	70	72
480-154881-2	RINSATE BLANK-061219	125	66	80	89	73	82	84	80
480-154881-3	FIELD BLANK-061219	139	63	79	81	74	87	80	82
480-154881-4	B1A-MW-6-061219	98	74	79	86	85	80	82	76
480-154881-5	DUP-061219	102	69	74	77	71	78	72	74
LCS 200-144281/2-A	Lab Control Sample	112	75	81	85	83	85	88	81
MB 200-144281/1-A	Method Blank	118	75	77	85	81	86	86	76

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M282FTS (25-150)	PFBA (25-150)
480-154881-1	CCA-MW-10-061219	85	137
480-154881-2	RINSATE BLANK-061219	93	162 *
480-154881-3	FIELD BLANK-061219	78	201 *
480-154881-4	B1A-MW-6-061219	94	147
480-154881-5	DUP-061219	100	167 *
LCS 200-144281/2-A	Lab Control Sample	108	136
MB 200-144281/1-A	Method Blank	118	138

**Surrogate Legend**

PFHxS = 18O2 PFHxS  
PFHxA = 13C2 PFHxA  
PFOS = 13C4 PFOS  
13C3-PFBS = 13C3 PFBS  
PFOSA = 13C8 FOSA  
M262FTS = M2-6:2 FTS

# Isotope Dilution Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154881-1

PFD<sub>o</sub>A = 13C<sub>2</sub> PFD<sub>o</sub>A  
d<sub>5</sub>-NEtFOSAA = d<sub>5</sub>-NEtFOSAA  
PFPeA = 13C<sub>5</sub> PFPeA  
PFTDA = 13C<sub>2</sub> PFTeDA  
PFNA = 13C<sub>5</sub> PFNA  
PFDA = 13C<sub>2</sub> PFDA  
d<sub>3</sub>-NMeFOSAA = d<sub>3</sub>-NMeFOSAA  
PFOA = 13C<sub>4</sub> PFOA  
PFUnA = 13C<sub>2</sub> PFUnA  
PFHpA = 13C<sub>4</sub> PFHpA  
M282FTS = M2-8:2 FTS  
PFBA = 13C<sub>4</sub> PFBA



## QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154881-1

### Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

**Lab Sample ID: MB 480-477730/1-A**  
**Matrix: Water**  
**Analysis Batch: 477902**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 477730**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		06/14/19 06:48	06/14/19 18:58	1
Isotope Dilution	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	28		15 - 110				06/14/19 06:48	06/14/19 18:58	1

**Lab Sample ID: LCS 480-477730/2-A**  
**Matrix: Water**  
**Analysis Batch: 477902**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 477730**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	1.00	1.12		ug/L		112	40 - 140
Isotope Dilution	%Recovery	LCS Qualifier	Limits				
1,4-Dioxane-d8	28		15 - 110				

### Method: 537 (modified) - Fluorinated Alkyl Substances

**Lab Sample ID: MB 200-144281/1-A**  
**Matrix: Water**  
**Analysis Batch: 144448**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 144281**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	1.0	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.63	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.76	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.91	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.63	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.77	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.53	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.59	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	0.60	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.92	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.49	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.95	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.61	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.90	ng/L		06/20/19 08:13	06/25/19 13:19	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		20	1.7	ng/L		06/20/19 08:13	06/25/19 13:19	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		20	1.5	ng/L		06/20/19 08:13	06/25/19 13:19	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		20	4.6	ng/L		06/20/19 08:13	06/25/19 13:19	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		20	2.9	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorooctanesulfonamide (PFOSA)	ND		10	10	ng/L		06/20/19 08:13	06/25/19 13:19	1

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154881-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
18O2 PFHxS	154	*	50 - 150	06/20/19 08:13	06/25/19 13:19	1
13C2 PFHxA	90		50 - 150	06/20/19 08:13	06/25/19 13:19	1
13C4 PFOS	104		50 - 150	06/20/19 08:13	06/25/19 13:19	1
13C3 PFBS	130		50 - 150	06/20/19 08:13	06/25/19 13:19	1
13C8 FOSA	70		25 - 150	06/20/19 08:13	06/25/19 13:19	1
M2-6:2 FTS	107		25 - 150	06/20/19 08:13	06/25/19 13:19	1
13C2 PFDoA	80		50 - 150	06/20/19 08:13	06/25/19 13:19	1
d5-NEtFOSAA	94		50 - 150	06/20/19 08:13	06/25/19 13:19	1
13C5 PFPeA	118		25 - 150	06/20/19 08:13	06/25/19 13:19	1
13C2 PFTeDA	75		50 - 150	06/20/19 08:13	06/25/19 13:19	1
13C5 PFNA	77		50 - 150	06/20/19 08:13	06/25/19 13:19	1
13C2 PFDA	85		50 - 150	06/20/19 08:13	06/25/19 13:19	1
d3-NMeFOSAA	81		50 - 150	06/20/19 08:13	06/25/19 13:19	1
13C4 PFOA	86		50 - 150	06/20/19 08:13	06/25/19 13:19	1
13C2 PFUnA	86		50 - 150	06/20/19 08:13	06/25/19 13:19	1
13C4 PFHpA	76		50 - 150	06/20/19 08:13	06/25/19 13:19	1
M2-8:2 FTS	118		25 - 150	06/20/19 08:13	06/25/19 13:19	1
13C4 PFBA	138		25 - 150	06/20/19 08:13	06/25/19 13:19	1

Lab Sample ID: LCS 200-144281/2-A

Matrix: Water

Analysis Batch: 144448

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 144281

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Perfluorobutanoic acid (PFBA)	40.0	21.5		ng/L		54	50 - 150
Perfluoropentanoic acid (PFPeA)	40.0	36.6		ng/L		92	50 - 150
Perfluorohexanoic acid (PFHxA)	40.0	40.0		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	40.0	43.4		ng/L		108	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	45.8		ng/L		115	70 - 130
Perfluorononanoic acid (PFNA)	40.0	43.6		ng/L		109	70 - 130
Perfluorodecanoic acid (PFDA)	40.0	43.1		ng/L		108	70 - 130
Perfluoroundecanoic acid (PFUnA)	40.0	38.9		ng/L		97	70 - 130
Perfluorododecanoic acid (PFDoA)	40.0	40.8		ng/L		102	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	40.7		ng/L		102	70 - 130
Perfluorotetradecanoic acid (PFTeA)	40.0	41.5		ng/L		104	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	30.8		ng/L		87	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.4	31.9		ng/L		88	70 - 130
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.0		ng/L		103	50 - 150
Perfluorooctanesulfonic acid (PFOS)	37.1	35.7		ng/L		96	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	36.8		ng/L		96	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	37.6		ng/L		94	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	40.2		ng/L		100	70 - 130
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	34.2		ng/L		90	50 - 150

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154881-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-144281/2-A

Matrix: Water

Analysis Batch: 144448

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 144281

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	43.3		ng/L		113	50 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	46.5		ng/L		116	50 - 150
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
18O2 PFHxS	141		50 - 150				
13C2 PFHxA	88		50 - 150				
13C4 PFOS	113		50 - 150				
13C3 PFBS	132		50 - 150				
13C8 FOSA	90		25 - 150				
M2-6:2 FTS	123		25 - 150				
13C2 PFDoA	81		50 - 150				
d5-NEtFOSAA	90		50 - 150				
13C5 PFPeA	112		25 - 150				
13C2 PFTeDA	75		50 - 150				
13C5 PFNA	81		50 - 150				
13C2 PFDA	85		50 - 150				
d3-NMeFOSAA	83		50 - 150				
13C4 PFOA	85		50 - 150				
13C2 PFUnA	88		50 - 150				
13C4 PFHpA	81		50 - 150				
M2-8:2 FTS	108		25 - 150				
13C4 PFBA	136		25 - 150				

# QC Association Summary

Client: New York State D.E.C.  
 Project/Site: Little Valley #905026

Job ID: 480-154881-1

## GC/MS Semi VOA

### Prep Batch: 477730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-154881-1	CCA-MW-10-061219	Total/NA	Water	3510C	
480-154881-4	B1A-MW-6-061219	Total/NA	Water	3510C	
480-154881-5	DUP-061219	Total/NA	Water	3510C	
MB 480-477730/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-477730/2-A	Lab Control Sample	Total/NA	Water	3510C	

### Analysis Batch: 477902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-154881-1	CCA-MW-10-061219	Total/NA	Water	8270D SIM ID	477730
480-154881-4	B1A-MW-6-061219	Total/NA	Water	8270D SIM ID	477730
480-154881-5	DUP-061219	Total/NA	Water	8270D SIM ID	477730
MB 480-477730/1-A	Method Blank	Total/NA	Water	8270D SIM ID	477730
LCS 480-477730/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	477730

## LCMS

### Prep Batch: 144281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-154881-1	CCA-MW-10-061219	Total/NA	Water	3535	
480-154881-2	RINSATE BLANK-061219	Total/NA	Water	3535	
480-154881-3	FIELD BLANK-061219	Total/NA	Water	3535	
480-154881-4	B1A-MW-6-061219	Total/NA	Water	3535	
480-154881-5	DUP-061219	Total/NA	Water	3535	
MB 200-144281/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-144281/2-A	Lab Control Sample	Total/NA	Water	3535	

### Analysis Batch: 144448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-154881-1	CCA-MW-10-061219	Total/NA	Water	537 (modified)	144281
480-154881-2	RINSATE BLANK-061219	Total/NA	Water	537 (modified)	144281
480-154881-3	FIELD BLANK-061219	Total/NA	Water	537 (modified)	144281
480-154881-4	B1A-MW-6-061219	Total/NA	Water	537 (modified)	144281
480-154881-5	DUP-061219	Total/NA	Water	537 (modified)	144281
MB 200-144281/1-A	Method Blank	Total/NA	Water	537 (modified)	144281
LCS 200-144281/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	144281

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154881-1

**Client Sample ID: CCA-MW-10-061219**

**Lab Sample ID: 480-154881-1**

Date Collected: 06/12/19 15:35

Matrix: Water

Date Received: 06/12/19 19:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			477730	06/14/19 06:48	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	477902	06/15/19 00:13	RJS	TAL BUF
Total/NA	Prep	3535			144281	06/20/19 08:13	TPB	TAL BUR
Total/NA	Analysis	537 (modified)		1	144448	06/25/19 13:51	JM1	TAL BUR

**Client Sample ID: RINSATE BLANK-061219**

**Lab Sample ID: 480-154881-2**

Date Collected: 06/12/19 16:05

Matrix: Water

Date Received: 06/12/19 19:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			144281	06/20/19 08:13	TPB	TAL BUR
Total/NA	Analysis	537 (modified)		1	144448	06/25/19 14:07	JM1	TAL BUR

**Client Sample ID: FIELD BLANK-061219**

**Lab Sample ID: 480-154881-3**

Date Collected: 06/12/19 16:15

Matrix: Water

Date Received: 06/12/19 19:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			144281	06/20/19 08:13	TPB	TAL BUR
Total/NA	Analysis	537 (modified)		1	144448	06/25/19 14:23	JM1	TAL BUR

**Client Sample ID: B1A-MW-6-061219**

**Lab Sample ID: 480-154881-4**

Date Collected: 06/12/19 18:00

Matrix: Water

Date Received: 06/12/19 19:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			477730	06/14/19 06:48	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	477902	06/15/19 00:37	RJS	TAL BUF
Total/NA	Prep	3535			144281	06/20/19 08:13	TPB	TAL BUR
Total/NA	Analysis	537 (modified)		1	144448	06/25/19 14:38	JM1	TAL BUR

**Client Sample ID: DUP-061219**

**Lab Sample ID: 480-154881-5**

Date Collected: 06/12/19 00:00

Matrix: Water

Date Received: 06/12/19 19:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			477730	06/14/19 06:48	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	477902	06/15/19 01:01	RJS	TAL BUF
Total/NA	Prep	3535			144281	06/20/19 08:13	TPB	TAL BUR
Total/NA	Analysis	537 (modified)		1	144448	06/25/19 14:54	JM1	TAL BUR

**Laboratory References:**

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

# Accreditation/Certification Summary

Client: New York State D.E.C.  
 Project/Site: Little Valley #905026

Job ID: 480-154881-1

## Laboratory: Eurofins TestAmerica, Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-20

## Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP		L2336	02-25-20
ANAB	DoD		L2336	02-25-20
Connecticut	State Program	1	PH-0751	09-30-19
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-01-20
Florida	NELAP	4	E87467	06-30-20
Minnesota	NELAP	5	050-999-436	12-31-19
New Hampshire	NELAP	1	2006	12-18-19
New Jersey	NELAP	2	VT972	06-30-20
New York	NELAP	2	10391	04-01-20
Pennsylvania	NELAP	3	68-00489	04-30-20
Pennsylvania	NELAP		68-00489	04-30-20
Rhode Island	State Program	1	LAO00298	12-30-19
US Fish & Wildlife	Federal		LE-058448-0	07-31-19
USDA	Federal		P330-11-00093	07-24-20
Vermont	State Program	1	VT-4000	12-31-19
Virginia	NELAP	3	460209	12-14-19

# Method Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154881-1

Method	Method Description	Protocol	Laboratory
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL BUR
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
3535	Solid-Phase Extraction (SPE)	SW846	TAL BUR

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990



# Sample Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154881-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-154881-1	CCA-MW-10-061219	Water	06/12/19 15:35	06/12/19 19:52	
480-154881-2	RINSATE BLANK-061219	Water	06/12/19 16:05	06/12/19 19:52	
480-154881-3	FIELD BLANK-061219	Water	06/12/19 16:15	06/12/19 19:52	
480-154881-4	B1A-MW-6-061219	Water	06/12/19 18:00	06/12/19 19:52	
480-154881-5	DUP-061219	Water	06/12/19 00:00	06/12/19 19:52	

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# Chain of Custody Record

314921

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING  
TestAmerica Laboratories, Inc.  
TAL-8210 (0713)

Regulatory Program:  DW  NPDES  RCRA  Other:

Project Manager: Steve Caponeire  
Site Contact: Matt Holquist  
Date: 6/12/19  
Carrier:   
COC No:   
Job / SDG No.:   
Sample Specific Notes:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PPE, IDA - PPEs - Analytes	21 Analytes	B270 D-Sim MS-10 - (MOO) i, H Discrete	Lab Contact:	Carrier:	Date:	COC No:
CCA-MW-10-061219	6/12/19	15:35	G	Water	4	N	N	X	X	X				
Rinsate Blank - 061219	6/12/19	16:05	G	Water	2	N	N	X	X	X				
Field Blank - 061219	6/12/19	16:15	G	Water	2	N	N	X	X	X				
BIA-MW-6-061219	6/12/19	18:00	G	Water	4	N	N	X	X	X				
Dup - 061219	6/12/19	-	G	Water	4	N	N	X	X	X				

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

Special Instructions/QC Requirements & Comments:

Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month )

Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months

Custody Seal No.: 715640  
Cooler Temp. (°C): Obs'd: \_\_\_\_\_ Corr'd: \_\_\_\_\_  
Therm ID No.: \_\_\_\_\_

Relinquished by: *Michelle Muller* Date/Time: 6-12-19/18:22  
Company: *Watts*

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Company: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Company: \_\_\_\_\_

Received by: *Steve Caponeire* Date/Time: 6-12-19 19:52  
Company: *Watts*

Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Company: \_\_\_\_\_

Received in Laboratory by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Company: \_\_\_\_\_



**Chain of Custody Record**



<b>Client Information (Sub Contract Lab)</b>		Lab PM: Johnson, Oriette S	
Shipping/Receiving		E-Mail: oriette.johnson@testamericainc.com	
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York	
Address: 30 Community Drive, Suite 11, South Burlington, VT, 05403		Job #: 480-154881-1	
Phone: 802-660-1990(Tel) 802-660-1919(Fax)		COC No: 480-50247-1	
Email:		Page: 1 of 1	
Project Name: Little Valley #905026		Job #: 480-154881-1	
Site:		Preservation Codes:	
Due Date Requested: 6/25/2019		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
TAT Requested (days):		Other:	
PO #:		Special Instructions/Note:	
WC #:		Total Number of Containers	
Project #: 48004368		Analysis Requested	
SSOW#:		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>	
Sample Identification - Client ID (Lab ID)		PFC (ID/MS/55 IVWT (MOD) PFS, Standard List (21) analyses) <input checked="" type="checkbox"/>	
Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Micro, Spill, On-site, etc.)
6/12/19	15:35 Eastern	Water	Water
6/12/19	16:05 Eastern	Water	Water
6/12/19	16:15 Eastern	Water	Water
6/12/19	18:00 Eastern	Water	Water
6/12/19	Eastern	Water	Water
<p><b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b>  <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p> <p>Special Instructions/QC Requirements:</p>			
Date: 6/14/19		Date/Time: 6/15/19 09:30	
Relinquished by: [Signature]		Company: TestAmerica	
Relinquished by:		Company:	
Relinquished by:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 0.6	





ORIGIN ID:DKKA (716) 691-2600  
CHAR BRONSON  
TEST AMERICA  
10 HAZELWOOD

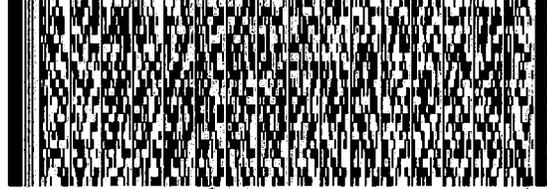
SHIP DATE:  
ACTWGT: 23  
CAD: 84665  
DIMS: 19x1

AMHERST, NY 14228  
UNITED STATES US

BILL RECIP

RT 876 1 12:00 0070 06.15  
C  
FZ

TO **SAMPLE MGT.**  
**TA BURLINGTON**  
**30 COMMUNITY DRIVE**  
**SUITE 11**  
**SOUTH BURLINGTON VT 05403**  
(802) 680-1990 REF: BURLINGTON  
DEPT: SAMPLE CONTROL

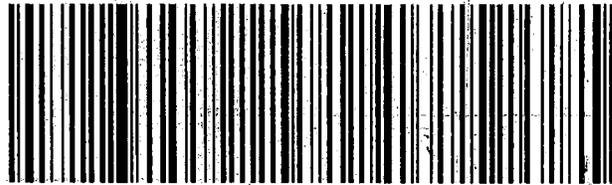


TRK# 4276 0720 0070  
0201

**SATURDAY 12:00P**  
**PRIORITY OVERNIGHT**

**XO BTVA**

**05403**  
**VT-US BTV**



## Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-154881-1

**Login Number: 154881**

**List Source: Eurofins TestAmerica, Buffalo**

**List Number: 1**

**Creator: Harper, Marcus D**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	WATTS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	



## Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-154881-1

**Login Number: 154881**

**List Number: 2**

**Creator: McNabb, Robert W**

**List Source: Eurofins TestAmerica, Burlington**

**List Creation: 06/15/19 03:18 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.6°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



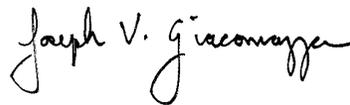
## ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo  
10 Hazelwood Drive  
Amherst, NY 14228-2298  
Tel: (716)691-2600

Laboratory Job ID: 480-154922-1  
Client Project/Site: Little Valley #905026

For:  
New York State D.E.C.  
625 Broadway 9th Floor  
Albany, New York 12233-7258

Attn: George Momberger



Authorized for release by:  
7/15/2019 3:58:37 PM

Joe Giacomazza, Project Management Assistant II  
[joe.giacomazza@testamericainc.com](mailto:joe.giacomazza@testamericainc.com)

Designee for

Orlette Johnson, Senior Project Manager  
(484)685-0864  
[orlette.johnson@testamericainc.com](mailto:orlette.johnson@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



---

Joe Giacomazza  
Project Management Assistant II  
7/15/2019 3:58:37 PM



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# Definitions/Glossary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154922-1

## Qualifiers

### LCMS

Qualifier	Qualifier Description
*	Isotope Dilution analyte is outside acceptance limits.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154922-1

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## Job ID: 480-154922-1

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Laboratory: Eurofins TestAmerica, Buffalo

### Narrative

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#### Job Narrative 480-154922-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 6/13/2019 7:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.6° C.

#### GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### LCMS

Method(s) 537 (modified): 13C4 PFBA Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: (CCV 200-144448/5). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method(s) 537 (modified): 13C3 PFBS, M2-6:2 FTS, 13C5 PFPeA, 13C4 PFBA, 13C4 PFOS and 18O2 PFHxS Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: (CCV 200-144448/18). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method(s) 537 (modified): The continuing calibration verification (CCV) associated with batch 200-144448 recovered above the upper control limit for Perfluorobutanoic acid (PFBA). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 537 (modified): 18O2 PFHxS Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: (MB 200-144281/1-A). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method(s) 537 (modified): 18O2 PFHxS, 13C4 PFBA and 13C3 PFBS Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following samples: NLA-PZ-55D-061319 (480-154922-1) and FIELD BLANK-061319 (480-154922-2). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method(s) 537 (modified): A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: The associated samples are reported within windows where the CCV for Perfluorobutanoic acid (PFBA) was below acceptance criteria. Since all samples had area responses less than the response associated with the detection limit associated with Perfluorobutanoic acid (PFBA), the results are being reported as non-detects.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154922-1

**Client Sample ID: NLA-PZ-55D-061319**

**Lab Sample ID: 480-154922-1**

No Detections.

**Client Sample ID: FIELD BLANK-061319**

**Lab Sample ID: 480-154922-2**

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154922-1

**Client Sample ID: NLA-PZ-55D-061319**

**Lab Sample ID: 480-154922-1**

Date Collected: 06/13/19 16:40

Matrix: Water

Date Received: 06/13/19 19:15

**Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		06/17/19 15:57	06/19/19 20:14	1
<i>Isotope Dilution</i>		<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>			<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,4-Dioxane-d8		30		15 - 110			06/17/19 15:57	06/19/19 20:14	1

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.6	0.80	ng/L		06/20/19 08:13	06/25/19 15:10	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.50	ng/L		06/20/19 08:13	06/25/19 15:10	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.61	ng/L		06/20/19 08:13	06/25/19 15:10	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.73	ng/L		06/20/19 08:13	06/25/19 15:10	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.50	ng/L		06/20/19 08:13	06/25/19 15:10	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.22	ng/L		06/20/19 08:13	06/25/19 15:10	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.61	ng/L		06/20/19 08:13	06/25/19 15:10	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.42	ng/L		06/20/19 08:13	06/25/19 15:10	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.47	ng/L		06/20/19 08:13	06/25/19 15:10	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.48	ng/L		06/20/19 08:13	06/25/19 15:10	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.73	ng/L		06/20/19 08:13	06/25/19 15:10	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.39	ng/L		06/20/19 08:13	06/25/19 15:10	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.64	ng/L		06/20/19 08:13	06/25/19 15:10	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.6	0.76	ng/L		06/20/19 08:13	06/25/19 15:10	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	0.49	ng/L		06/20/19 08:13	06/25/19 15:10	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.72	ng/L		06/20/19 08:13	06/25/19 15:10	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		16	1.4	ng/L		06/20/19 08:13	06/25/19 15:10	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		16	1.2	ng/L		06/20/19 08:13	06/25/19 15:10	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		16	3.7	ng/L		06/20/19 08:13	06/25/19 15:10	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		16	2.3	ng/L		06/20/19 08:13	06/25/19 15:10	1
Perfluorooctanesulfonamide (PFOSA)	ND		8.0	8.0	ng/L		06/20/19 08:13	06/25/19 15:10	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>			<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>	
18O2 PFHxS	158	*	50 - 150			06/20/19 08:13	06/25/19 15:10	1	
13C2 PFHxA	72		50 - 150			06/20/19 08:13	06/25/19 15:10	1	
13C4 PFOS	106		50 - 150			06/20/19 08:13	06/25/19 15:10	1	
13C3 PFBS	163	*	50 - 150			06/20/19 08:13	06/25/19 15:10	1	
13C8 FOSA	81		25 - 150			06/20/19 08:13	06/25/19 15:10	1	
M2-6:2 FTS	105		25 - 150			06/20/19 08:13	06/25/19 15:10	1	
13C2 PFDoA	75		50 - 150			06/20/19 08:13	06/25/19 15:10	1	
d5-NEtFOSAA	76		50 - 150			06/20/19 08:13	06/25/19 15:10	1	
13C5 PFPeA	102		25 - 150			06/20/19 08:13	06/25/19 15:10	1	
13C2 PFTeDA	70		50 - 150			06/20/19 08:13	06/25/19 15:10	1	
13C5 PFNA	67		50 - 150			06/20/19 08:13	06/25/19 15:10	1	
13C2 PFDA	77		50 - 150			06/20/19 08:13	06/25/19 15:10	1	
d3-NMeFOSAA	67		50 - 150			06/20/19 08:13	06/25/19 15:10	1	
13C4 PFOA	71		50 - 150			06/20/19 08:13	06/25/19 15:10	1	
13C2 PFUnA	76		50 - 150			06/20/19 08:13	06/25/19 15:10	1	
13C4 PFHpA	65		50 - 150			06/20/19 08:13	06/25/19 15:10	1	
M2-8:2 FTS	81		25 - 150			06/20/19 08:13	06/25/19 15:10	1	

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154922-1

**Client Sample ID: NLA-PZ-55D-061319**

**Lab Sample ID: 480-154922-1**

**Date Collected: 06/13/19 16:40**

**Matrix: Water**

**Date Received: 06/13/19 19:15**

**Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	152	*	25 - 150	06/20/19 08:13	06/25/19 15:10	1

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# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154922-1

**Client Sample ID: FIELD BLANK-061319**

**Lab Sample ID: 480-154922-2**

**Date Collected: 06/13/19 16:55**

**Matrix: Water**

**Date Received: 06/13/19 19:15**

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.6	0.81	ng/L		06/20/19 08:13	06/25/19 15:26	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.51	ng/L		06/20/19 08:13	06/25/19 15:26	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.62	ng/L		06/20/19 08:13	06/25/19 15:26	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.74	ng/L		06/20/19 08:13	06/25/19 15:26	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.51	ng/L		06/20/19 08:13	06/25/19 15:26	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.22	ng/L		06/20/19 08:13	06/25/19 15:26	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.63	ng/L		06/20/19 08:13	06/25/19 15:26	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.43	ng/L		06/20/19 08:13	06/25/19 15:26	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.48	ng/L		06/20/19 08:13	06/25/19 15:26	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.49	ng/L		06/20/19 08:13	06/25/19 15:26	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.75	ng/L		06/20/19 08:13	06/25/19 15:26	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.40	ng/L		06/20/19 08:13	06/25/19 15:26	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.65	ng/L		06/20/19 08:13	06/25/19 15:26	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.6	0.77	ng/L		06/20/19 08:13	06/25/19 15:26	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	0.50	ng/L		06/20/19 08:13	06/25/19 15:26	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.73	ng/L		06/20/19 08:13	06/25/19 15:26	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		16	1.4	ng/L		06/20/19 08:13	06/25/19 15:26	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		16	1.2	ng/L		06/20/19 08:13	06/25/19 15:26	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		16	3.7	ng/L		06/20/19 08:13	06/25/19 15:26	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		16	2.4	ng/L		06/20/19 08:13	06/25/19 15:26	1
Perfluorooctanesulfonamide (PFOSA)	ND		8.1	8.1	ng/L		06/20/19 08:13	06/25/19 15:26	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
18O2 PFHxS	163	*	50 - 150				06/20/19 08:13	06/25/19 15:26	1
13C2 PFHxA	97		50 - 150				06/20/19 08:13	06/25/19 15:26	1
13C4 PFOS	123		50 - 150				06/20/19 08:13	06/25/19 15:26	1
13C3 PFBS	167	*	50 - 150				06/20/19 08:13	06/25/19 15:26	1
13C8 FOSA	97		25 - 150				06/20/19 08:13	06/25/19 15:26	1
M2-6:2 FTS	114		25 - 150				06/20/19 08:13	06/25/19 15:26	1
13C2 PFDoA	82		50 - 150				06/20/19 08:13	06/25/19 15:26	1
d5-NEtFOSAA	99		50 - 150				06/20/19 08:13	06/25/19 15:26	1
13C5 PFPeA	123		25 - 150				06/20/19 08:13	06/25/19 15:26	1
13C2 PFTeDA	75		50 - 150				06/20/19 08:13	06/25/19 15:26	1
13C5 PFNA	88		50 - 150				06/20/19 08:13	06/25/19 15:26	1
13C2 PFDA	92		50 - 150				06/20/19 08:13	06/25/19 15:26	1
d3-NMeFOSAA	82		50 - 150				06/20/19 08:13	06/25/19 15:26	1
13C4 PFOA	88		50 - 150				06/20/19 08:13	06/25/19 15:26	1
13C2 PFUnA	91		50 - 150				06/20/19 08:13	06/25/19 15:26	1
13C4 PFHpA	90		50 - 150				06/20/19 08:13	06/25/19 15:26	1
M2-8:2 FTS	88		25 - 150				06/20/19 08:13	06/25/19 15:26	1
13C4 PFBA	178	*	25 - 150				06/20/19 08:13	06/25/19 15:26	1

# Isotope Dilution Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154922-1

## Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (15-110)
480-154922-1	NLA-PZ-55D-061319	30
LCS 480-478176/2-A	Lab Control Sample	33
MB 480-478176/1-A	Method Blank	36

#### Surrogate Legend

DXE = 1,4-Dioxane-d8

## Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxS (50-150)	PFHxA (50-150)	PFOS (50-150)	3C3-PFB: (50-150)	PFOSA (25-150)	M262FTS (25-150)	PFDaA (50-150)	d5-NEtFOSAA (50-150)
480-154922-1	NLA-PZ-55D-061319	158 *	72	106	163 *	81	105	75	76
480-154922-2	FIELD BLANK-061319	163 *	97	123	167 *	97	114	82	99
LCS 200-144281/2-A	Lab Control Sample	141	88	113	132	90	123	81	90
MB 200-144281/1-A	Method Blank	154 *	90	104	130	70	107	80	94

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFPeA (25-150)	PFTDA (50-150)	PFNA (50-150)	PFDA (50-150)	-NMeFOSAA (50-150)	PFOA (50-150)	PFUnA (50-150)	PFHpA (50-150)
480-154922-1	NLA-PZ-55D-061319	102	70	67	77	67	71	76	65
480-154922-2	FIELD BLANK-061319	123	75	88	92	82	88	91	90
LCS 200-144281/2-A	Lab Control Sample	112	75	81	85	83	85	88	81
MB 200-144281/1-A	Method Blank	118	75	77	85	81	86	86	76

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M282FTS (25-150)	PFBA (25-150)
480-154922-1	NLA-PZ-55D-061319	81	152 *
480-154922-2	FIELD BLANK-061319	88	178 *
LCS 200-144281/2-A	Lab Control Sample	108	136
MB 200-144281/1-A	Method Blank	118	138

#### Surrogate Legend

PFHxS = 18O2 PFHxS  
 PFHxA = 13C2 PFHxA  
 PFOS = 13C4 PFOS  
 13C3-PFBs = 13C3 PFBS  
 PFOSA = 13C8 FOSA  
 M262FTS = M2-6:2 FTS  
 PFDaA = 13C2 PFDaA  
 d5-NEtFOSAA = d5-NEtFOSAA  
 PFPeA = 13C5 PFPeA  
 PFTDA = 13C2 PFTeDA  
 PFNA = 13C5 PFNA  
 PFDA = 13C2 PFDA  
 d3-NMeFOSAA = d3-NMeFOSAA  
 PFOA = 13C4 PFOA  
 PFUnA = 13C2 PFUnA  
 PFHpA = 13C4 PFHpA  
 M282FTS = M2-8:2 FTS

# Isotope Dilution Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026  
PFBA = 13C4 PFBA

Job ID: 480-154922-1

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# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154922-1

## Method: 8270D SIM ID - Semivolatle Organic Compounds (GC/MS SIM / Isotope Dilution)

**Lab Sample ID: MB 480-478176/1-A**  
**Matrix: Water**  
**Analysis Batch: 478609**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 478176**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		06/17/19 15:57	06/19/19 18:16	1
Isotope Dilution	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	36		15 - 110				06/17/19 15:57	06/19/19 18:16	1

**Lab Sample ID: LCS 480-478176/2-A**  
**Matrix: Water**  
**Analysis Batch: 478609**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 478176**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.
1,4-Dioxane	1.00	1.15		ug/L		115	40 - 140	
Isotope Dilution	%Recovery	LCS Qualifier	Limits					
1,4-Dioxane-d8	33		15 - 110					

## Method: 537 (modified) - Fluorinated Alkyl Substances

**Lab Sample ID: MB 200-144281/1-A**  
**Matrix: Water**  
**Analysis Batch: 144448**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 144281**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	1.0	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.63	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.76	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.91	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.63	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.77	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.53	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.59	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	0.60	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.92	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.49	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.95	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.61	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.90	ng/L		06/20/19 08:13	06/25/19 13:19	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		20	1.7	ng/L		06/20/19 08:13	06/25/19 13:19	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		20	1.5	ng/L		06/20/19 08:13	06/25/19 13:19	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		20	4.6	ng/L		06/20/19 08:13	06/25/19 13:19	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		20	2.9	ng/L		06/20/19 08:13	06/25/19 13:19	1
Perfluorooctanesulfonamide (PFOSA)	ND		10	10	ng/L		06/20/19 08:13	06/25/19 13:19	1

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154922-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

<i>Isotope Dilution</i>	<i>MB</i>	<i>MB</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
	<i>%Recovery</i>	<i>Qualifier</i>				
18O2 PFHxS	154	*	50 - 150	06/20/19 08:13	06/25/19 13:19	1
13C2 PFHxA	90		50 - 150	06/20/19 08:13	06/25/19 13:19	1
13C4 PFOS	104		50 - 150	06/20/19 08:13	06/25/19 13:19	1
13C3 PFBS	130		50 - 150	06/20/19 08:13	06/25/19 13:19	1
13C8 FOSA	70		25 - 150	06/20/19 08:13	06/25/19 13:19	1
M2-6:2 FTS	107		25 - 150	06/20/19 08:13	06/25/19 13:19	1
13C2 PFDoA	80		50 - 150	06/20/19 08:13	06/25/19 13:19	1
d5-NEtFOSAA	94		50 - 150	06/20/19 08:13	06/25/19 13:19	1
13C5 PFPeA	118		25 - 150	06/20/19 08:13	06/25/19 13:19	1
13C2 PFTeDA	75		50 - 150	06/20/19 08:13	06/25/19 13:19	1
13C5 PFNA	77		50 - 150	06/20/19 08:13	06/25/19 13:19	1
13C2 PFDA	85		50 - 150	06/20/19 08:13	06/25/19 13:19	1
d3-NMeFOSAA	81		50 - 150	06/20/19 08:13	06/25/19 13:19	1
13C4 PFOA	86		50 - 150	06/20/19 08:13	06/25/19 13:19	1
13C2 PFUnA	86		50 - 150	06/20/19 08:13	06/25/19 13:19	1
13C4 PFHpA	76		50 - 150	06/20/19 08:13	06/25/19 13:19	1
M2-8:2 FTS	118		25 - 150	06/20/19 08:13	06/25/19 13:19	1
13C4 PFBA	138		25 - 150	06/20/19 08:13	06/25/19 13:19	1

Lab Sample ID: LCS 200-144281/2-A

Matrix: Water

Analysis Batch: 144448

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 144281

<i>Analyte</i>	<i>Spike</i>	<i>LCS</i>	<i>LCS</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>Limits</i>
	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>				<i>%Rec.</i>
Perfluorobutanoic acid (PFBA)	40.0	21.5		ng/L		54	50 - 150
Perfluoropentanoic acid (PFPeA)	40.0	36.6		ng/L		92	50 - 150
Perfluorohexanoic acid (PFHxA)	40.0	40.0		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	40.0	43.4		ng/L		108	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	45.8		ng/L		115	70 - 130
Perfluorononanoic acid (PFNA)	40.0	43.6		ng/L		109	70 - 130
Perfluorodecanoic acid (PFDA)	40.0	43.1		ng/L		108	70 - 130
Perfluoroundecanoic acid (PFUnA)	40.0	38.9		ng/L		97	70 - 130
Perfluorododecanoic acid (PFDoA)	40.0	40.8		ng/L		102	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	40.7		ng/L		102	70 - 130
Perfluorotetradecanoic acid (PFTeA)	40.0	41.5		ng/L		104	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	30.8		ng/L		87	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.4	31.9		ng/L		88	70 - 130
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	39.0		ng/L		103	50 - 150
Perfluorooctanesulfonic acid (PFOS)	37.1	35.7		ng/L		96	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	36.8		ng/L		96	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	37.6		ng/L		94	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	40.2		ng/L		100	70 - 130
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	34.2		ng/L		90	50 - 150

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154922-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LCS 200-144281/2-A**  
**Matrix: Water**  
**Analysis Batch: 144448**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 144281**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	43.3		ng/L		113	50 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	46.5		ng/L		116	50 - 150

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
18O2 PFHxS	141		50 - 150
13C2 PFHxA	88		50 - 150
13C4 PFOS	113		50 - 150
13C3 PFBS	132		50 - 150
13C8 FOSA	90		25 - 150
M2-6:2 FTS	123		25 - 150
13C2 PFDoA	81		50 - 150
d5-NEtFOSAA	90		50 - 150
13C5 PFPeA	112		25 - 150
13C2 PFTeDA	75		50 - 150
13C5 PFNA	81		50 - 150
13C2 PFDA	85		50 - 150
d3-NMeFOSAA	83		50 - 150
13C4 PFOA	85		50 - 150
13C2 PFUnA	88		50 - 150
13C4 PFHpA	81		50 - 150
M2-8:2 FTS	108		25 - 150
13C4 PFBA	136		25 - 150



# QC Association Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154922-1

## GC/MS Semi VOA

### Prep Batch: 478176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-154922-1	NLA-PZ-55D-061319	Total/NA	Water	3510C	
MB 480-478176/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-478176/2-A	Lab Control Sample	Total/NA	Water	3510C	

### Analysis Batch: 478609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-154922-1	NLA-PZ-55D-061319	Total/NA	Water	8270D SIM ID	478176
MB 480-478176/1-A	Method Blank	Total/NA	Water	8270D SIM ID	478176
LCS 480-478176/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	478176

## LCMS

### Prep Batch: 144281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-154922-1	NLA-PZ-55D-061319	Total/NA	Water	3535	
480-154922-2	FIELD BLANK-061319	Total/NA	Water	3535	
MB 200-144281/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-144281/2-A	Lab Control Sample	Total/NA	Water	3535	

### Analysis Batch: 144448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-154922-1	NLA-PZ-55D-061319	Total/NA	Water	537 (modified)	144281
480-154922-2	FIELD BLANK-061319	Total/NA	Water	537 (modified)	144281
MB 200-144281/1-A	Method Blank	Total/NA	Water	537 (modified)	144281
LCS 200-144281/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	144281

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154922-1

**Client Sample ID: NLA-PZ-55D-061319**

**Lab Sample ID: 480-154922-1**

**Date Collected: 06/13/19 16:40**

**Matrix: Water**

**Date Received: 06/13/19 19:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			478176	06/17/19 15:57	ATG	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	478609	06/19/19 20:14	RJS	TAL BUF
Total/NA	Prep	3535			144281	06/20/19 08:13	TPB	TAL BUR
Total/NA	Analysis	537 (modified)		1	144448	06/25/19 15:10	JM1	TAL BUR

**Client Sample ID: FIELD BLANK-061319**

**Lab Sample ID: 480-154922-2**

**Date Collected: 06/13/19 16:55**

**Matrix: Water**

**Date Received: 06/13/19 19:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			144281	06/20/19 08:13	TPB	TAL BUR
Total/NA	Analysis	537 (modified)		1	144448	06/25/19 15:26	JM1	TAL BUR

#### Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

# Accreditation/Certification Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154922-1

## Laboratory: Eurofins TestAmerica, Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-20

## Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP		L2336	02-25-20
ANAB	DoD		L2336	02-25-20
Connecticut	State Program	1	PH-0751	09-30-19
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-01-20
Florida	NELAP	4	E87467	06-30-20
Minnesota	NELAP	5	050-999-436	12-31-19
New Hampshire	NELAP	1	2006	12-18-19
New Jersey	NELAP	2	VT972	06-30-20
New York	NELAP	2	10391	04-01-20
Pennsylvania	NELAP	3	68-00489	04-30-20
Pennsylvania	NELAP		68-00489	04-30-20
Rhode Island	State Program	1	LAO00298	12-30-19
US Fish & Wildlife	Federal		LE-058448-0	07-31-19
USDA	Federal		P330-11-00093	07-24-20
Vermont	State Program	1	VT-4000	12-31-19
Virginia	NELAP	3	460209	12-14-19

# Method Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154922-1

Method	Method Description	Protocol	Laboratory
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL BUR
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
3535	Solid-Phase Extraction (SPE)	SW846	TAL BUR

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

# Sample Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-154922-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-154922-1	NLA-PZ-55D-061319	Water	06/13/19 16:40	06/13/19 19:15	
480-154922-2	FIELD BLANK-061319	Water	06/13/19 16:55	06/13/19 19:15	

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Regulatory Program:  DW  NPDES  RCRA  Other:

Project Manager: <u>Steve Chimiere</u> Site Contact: <u>Matt Holquist</u> Lab Contact: _____ Date: _____ Carrier: _____		COC No: <u>1</u> of <u>1</u> COCs Sampler: <u>MAH/MSG</u> For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.:		
Project Name: <u>NYSDEC AEROM / Utility</u> Address: <u>95 Perry St. Suite 300</u> City/State/Zip: <u>Buffalo NY 14203</u> Phone: <u>716-806-5100</u> Fax: <u>716-706-5149</u> Project Name: <u>LITTLE VALLEY SITE</u> Site: <u>NYSDEC # 1905026</u> P O #		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below <input type="checkbox"/> 2 weeks <input type="checkbox"/> Standard <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		
Sample Identification <u>NLA-P2-55D-061819</u> <u>Field Blank - 061319</u>		Filtered Sample (Y / N) <u>Y</u> Perform MS / MSD (Y / N) <u>Y</u> PFC-IDA-PFAS (Stokes) <u>X</u> List-21 Analytes) <u>X</u> 8270 D-SIM.MCID - (MOD) 1,4-Dioxane <u>X</u>		
Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.
<u>6/13/19</u>	<u>16:40</u>	<u>G</u>	<u>Water</u>	<u>4</u>
<u>6/13/19</u>	<u>16:55</u>	<u>-</u>	<u>Water</u>	<u>2</u>
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH; 6= Other Possible Hazard Identification: _____ Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.				
Special Instructions/QC Requirements & Comments: Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months				
Custody Seal No.: <u>71564</u> Relinquished by: <u>Mark DeLuca</u> Relinquished by: _____		Cooler Temp. (°C): <u>4.6</u> Obs'd: _____ Received by: <u>TestAmerica</u> Received by: _____ Received in Laboratory by: _____		
Therm ID No.: <u>H1 FCE</u> Date/Time: <u>13JUN19 7:15</u> Date/Time: _____ Date/Time: _____		Company: <u>TestAmerica</u> Company: _____ Company: _____		



**Chain of Custody Record**



<b>Client Information (Sub Contract Lab)</b> Client Contact: Johnson, Oriette S Shipping/Receiving Company: TestAmerica Laboratories, Inc. Address: 30 Community Drive, Suite 11, South Burlington, VT, 05403 Phone: 802-660-1990(Tel) 802-660-1919(Fax) Email: Project Name: Little Valley #905026 Site:		Lab PM: Johnson, Oriette S E-Mail: oriette.johnson@testamericainc.com Accreditations Required (See note): NELAP - New York						
<b>Sample Information - Client ID (Lab ID)</b> NLA-PZ-55D-061319 (480-154922-1) FIELDBLANK-061319 (480-154922-2)		Sampler: Chain of Custody Phone: Due Date Requested: 6/25/2019 TAT Requested (days): PO #: WO #: Project #: 48004368 SOW#:						
Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Soil, O=Water, A=Air)	Field Filtered Sample (Yes or No)	PC IDA/636 IVWT PFAS Standard List (21 analyses)	Total Number of Containers	Special Instructions/Note:
NLA-PZ-55D-061319 (480-154922-1)	6/13/19	16:40 Eastern	Water	Water	X	X	2	
FIELDBLANK-061319 (480-154922-2)	6/13/19	16:55 Eastern	Water	Water	X	X	2	
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte, & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.								
<b>Possible Hazard Identification</b> Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 Empty Kit Relinquished by: Date: Relinquished by: Date: 6/14/19 17:00 Relinquished by: Date/Time: Relinquished by: Date/Time:								
<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:								
Received by: [Signature] Date/Time: 6/15/19 04:30 Company: TAB Received by: Date/Time: Company: Received by: Date/Time: Company: Cooler Temperature(s) °C and Other Remarks: 0.6								



ORIGIN ID:DKKA (716) 691-2600  
CHAR BRONSON  
TEST AMERICA  
10 HAZELWOOD

SHIP DATE:  
ACTNGT: 23  
CAD: 84665  
DIMS: 19x1

AMHERST, NY 1422B  
UNITED STATES US

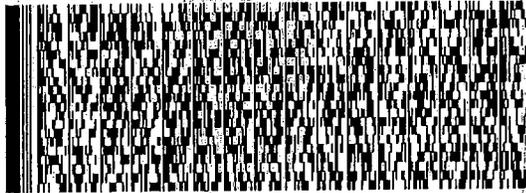
BILL RECIP

RT 876  
12:00  
C  
0070  
06.15  
FZ

TO **SAMPLE MGT.**  
**TA BURLINGTON**  
**30 COMMUNITY DRIVE**  
**SUITE 11**  
**SOUTH BURLINGTON VT 05403**

(802) 880-1880  
DEPT: SAMPLE CONTROL

REF: BURLINGTON



FedEx  
Express

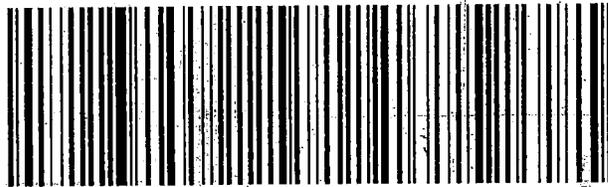


**SATURDAY 12:00P**  
**PRIORITY OVERNIGHT**

TRK# 4276 0720 0070  
0201

**XO BTVA**

05403  
VT-US BTV



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## Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-154922-1

**Login Number: 154922**

**List Source: Eurofins TestAmerica, Buffalo**

**List Number: 1**

**Creator: Kolb, Chris M**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	watts
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

## Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-154922-1

**Login Number: 154922**

**List Number: 2**

**Creator: McNabb, Robert W**

**List Source: Eurofins TestAmerica, Burlington**

**List Creation: 06/15/19 03:18 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.6°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

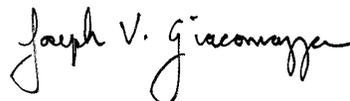
## ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo  
10 Hazelwood Drive  
Amherst, NY 14228-2298  
Tel: (716)691-2600

Laboratory Job ID: 480-155027-1  
Client Project/Site: Little Valley #905026

For:  
New York State D.E.C.  
625 Broadway 9th Floor  
Albany, New York 12233-7258

Attn: George Momberger



Authorized for release by:  
7/19/2019 8:30:36 AM

Joe Giacomazza, Project Management Assistant II  
[joe.giacomazza@testamericainc.com](mailto:joe.giacomazza@testamericainc.com)

Designee for

Orlette Johnson, Senior Project Manager  
(484)685-0864  
[orlette.johnson@testamericainc.com](mailto:orlette.johnson@testamericainc.com)

### LINKS

Review your project  
results through  
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Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



---

Joe Giacomazza  
Project Management Assistant II  
7/19/2019 8:30:36 AM



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# Definitions/Glossary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-155027-1

## Qualifiers

### LCMS

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-155027-1

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## Job ID: 480-155027-1

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Laboratory: Eurofins TestAmerica, Buffalo

### Narrative

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#### Job Narrative 480-155027-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 6/14/2019 6:18 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.4° C.

#### GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### LCMS

Method(s) 537 (modified): 13C3 PFBS Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: (CCVL 200-144725/3). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method(s) 537 (modified): The continuing calibration verification (CCV) associated with batch 200-144725 recovered outside acceptance criteria, low biased, for Perfluoropentanesulfonic acid (PFPeS). A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method(s) 537 (modified): The method blank for preparation batch 200-144394 and analytical batch 200-144725 contained Perfluorooctanoic acid (PFOA) above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction <and\_or> re-analysis of samples was not performed.

Method(s) 537 (modified): 18O2 PFHxS Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following samples: (CCV 200-144725/38) and (CCV 200-144725/48). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-155027-1

**Client Sample ID: SSA-PZ-62D-061419**

**Lab Sample ID: 480-155027-1**

No Detections.

**Client Sample ID: FIELD BLANK - 061419**

**Lab Sample ID: 480-155027-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	0.58	J B	1.6	0.51	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.50	J	1.6	0.49	ng/L	1		537 (modified)	Total/NA

**Client Sample ID: GTA-PZ-32-061419**

**Lab Sample ID: 480-155027-3**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo



# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-155027-1

**Client Sample ID: SSA-PZ-62D-061419**

**Lab Sample ID: 480-155027-1**

Date Collected: 06/14/19 12:40

Matrix: Water

Date Received: 06/14/19 18:18

**Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		06/18/19 08:04	06/28/19 13:01	1
<i>Isotope Dilution</i>		<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>			<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,4-Dioxane-d8		34		15 - 110			06/18/19 08:04	06/28/19 13:01	1

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.6	0.81	ng/L		06/24/19 06:55	07/04/19 04:58	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.51	ng/L		06/24/19 06:55	07/04/19 04:58	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.62	ng/L		06/24/19 06:55	07/04/19 04:58	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.74	ng/L		06/24/19 06:55	07/04/19 04:58	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.51	ng/L		06/24/19 06:55	07/04/19 04:58	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.22	ng/L		06/24/19 06:55	07/04/19 04:58	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.62	ng/L		06/24/19 06:55	07/04/19 04:58	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.43	ng/L		06/24/19 06:55	07/04/19 04:58	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.48	ng/L		06/24/19 06:55	07/04/19 04:58	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.49	ng/L		06/24/19 06:55	07/04/19 04:58	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.75	ng/L		06/24/19 06:55	07/04/19 04:58	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.40	ng/L		06/24/19 06:55	07/04/19 04:58	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.65	ng/L		06/24/19 06:55	07/04/19 04:58	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.6	0.77	ng/L		06/24/19 06:55	07/04/19 04:58	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	0.49	ng/L		06/24/19 06:55	07/04/19 04:58	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.73	ng/L		06/24/19 06:55	07/04/19 04:58	1
Perfluorooctanesulfonamide (PFOSA)	ND		8.1	8.1	ng/L		06/24/19 06:55	07/04/19 04:58	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		16	1.4	ng/L		06/24/19 06:55	07/04/19 04:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		16	1.2	ng/L		06/24/19 06:55	07/04/19 04:58	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		16	3.7	ng/L		06/24/19 06:55	07/04/19 04:58	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		16	2.4	ng/L		06/24/19 06:55	07/04/19 04:58	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>			<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>	
18O2 PFHxS	129		50 - 150			06/24/19 06:55	07/04/19 04:58	1	
13C4 PFHpA	74		50 - 150			06/24/19 06:55	07/04/19 04:58	1	
13C4 PFOA	80		50 - 150			06/24/19 06:55	07/04/19 04:58	1	
13C4 PFOS	94		50 - 150			06/24/19 06:55	07/04/19 04:58	1	
13C5 PFNA	72		50 - 150			06/24/19 06:55	07/04/19 04:58	1	
13C4 PFBA	78		25 - 150			06/24/19 06:55	07/04/19 04:58	1	
13C2 PFHxA	71		50 - 150			06/24/19 06:55	07/04/19 04:58	1	
13C2 PFDA	83		50 - 150			06/24/19 06:55	07/04/19 04:58	1	
13C2 PFUnA	82		50 - 150			06/24/19 06:55	07/04/19 04:58	1	
13C2 PFDoA	82		50 - 150			06/24/19 06:55	07/04/19 04:58	1	
13C8 FOSA	60		25 - 150			06/24/19 06:55	07/04/19 04:58	1	
13C5 PFPeA	67		25 - 150			06/24/19 06:55	07/04/19 04:58	1	
13C2 PFTeDA	89		50 - 150			06/24/19 06:55	07/04/19 04:58	1	
d3-NMeFOSAA	70		50 - 150			06/24/19 06:55	07/04/19 04:58	1	
d5-NEtFOSAA	93		50 - 150			06/24/19 06:55	07/04/19 04:58	1	
M2-6:2 FTS	99		25 - 150			06/24/19 06:55	07/04/19 04:58	1	
M2-8:2 FTS	85		25 - 150			06/24/19 06:55	07/04/19 04:58	1	

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-155027-1

**Client Sample ID: SSA-PZ-62D-061419**

**Lab Sample ID: 480-155027-1**

**Date Collected: 06/14/19 12:40**

**Matrix: Water**

**Date Received: 06/14/19 18:18**

**Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3 PFBS	124		50 - 150	06/24/19 06:55	07/04/19 04:58	1

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# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-155027-1

**Client Sample ID: FIELD BLANK - 061419**

**Lab Sample ID: 480-155027-2**

**Date Collected: 06/14/19 12:55**

**Matrix: Water**

**Date Received: 06/14/19 18:18**

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.6	0.81	ng/L		06/24/19 06:55	07/04/19 05:14	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.51	ng/L		06/24/19 06:55	07/04/19 05:14	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.61	ng/L		06/24/19 06:55	07/04/19 05:14	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.73	ng/L		06/24/19 06:55	07/04/19 05:14	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>0.58</b>	<b>J B</b>	1.6	0.51	ng/L		06/24/19 06:55	07/04/19 05:14	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.22	ng/L		06/24/19 06:55	07/04/19 05:14	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.62	ng/L		06/24/19 06:55	07/04/19 05:14	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.43	ng/L		06/24/19 06:55	07/04/19 05:14	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.48	ng/L		06/24/19 06:55	07/04/19 05:14	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.48	ng/L		06/24/19 06:55	07/04/19 05:14	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.74	ng/L		06/24/19 06:55	07/04/19 05:14	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.39	ng/L		06/24/19 06:55	07/04/19 05:14	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.64	ng/L		06/24/19 06:55	07/04/19 05:14	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.6	0.77	ng/L		06/24/19 06:55	07/04/19 05:14	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>0.50</b>	<b>J</b>	1.6	0.49	ng/L		06/24/19 06:55	07/04/19 05:14	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.73	ng/L		06/24/19 06:55	07/04/19 05:14	1
Perfluorooctanesulfonamide (PFOSA)	ND		8.1	8.1	ng/L		06/24/19 06:55	07/04/19 05:14	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		16	1.4	ng/L		06/24/19 06:55	07/04/19 05:14	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		16	1.2	ng/L		06/24/19 06:55	07/04/19 05:14	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		16	3.7	ng/L		06/24/19 06:55	07/04/19 05:14	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		16	2.3	ng/L		06/24/19 06:55	07/04/19 05:14	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	122		50 - 150	06/24/19 06:55	07/04/19 05:14	1
13C4 PFHpA	87		50 - 150	06/24/19 06:55	07/04/19 05:14	1
13C4 PFOA	87		50 - 150	06/24/19 06:55	07/04/19 05:14	1
13C4 PFOS	91		50 - 150	06/24/19 06:55	07/04/19 05:14	1
13C5 PFNA	83		50 - 150	06/24/19 06:55	07/04/19 05:14	1
13C4 PFBA	86		25 - 150	06/24/19 06:55	07/04/19 05:14	1
13C2 PFHxA	84		50 - 150	06/24/19 06:55	07/04/19 05:14	1
13C2 PFDA	92		50 - 150	06/24/19 06:55	07/04/19 05:14	1
13C2 PFUnA	85		50 - 150	06/24/19 06:55	07/04/19 05:14	1
13C2 PFDoA	80		50 - 150	06/24/19 06:55	07/04/19 05:14	1
13C8 FOSA	51		25 - 150	06/24/19 06:55	07/04/19 05:14	1
13C5 PFPeA	91		25 - 150	06/24/19 06:55	07/04/19 05:14	1
13C2 PFTeDA	79		50 - 150	06/24/19 06:55	07/04/19 05:14	1
d3-NMeFOSAA	81		50 - 150	06/24/19 06:55	07/04/19 05:14	1
d5-NEtFOSAA	96		50 - 150	06/24/19 06:55	07/04/19 05:14	1
M2-6:2 FTS	113		25 - 150	06/24/19 06:55	07/04/19 05:14	1
M2-8:2 FTS	94		25 - 150	06/24/19 06:55	07/04/19 05:14	1
13C3 PFBS	123		50 - 150	06/24/19 06:55	07/04/19 05:14	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-155027-1

**Client Sample ID: GTA-PZ-32-061419**

**Lab Sample ID: 480-155027-3**

Date Collected: 06/14/19 16:00

Matrix: Water

Date Received: 06/14/19 18:18

**Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		06/18/19 08:04	06/28/19 13:24	1
<i>Isotope Dilution</i>		<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>			<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,4-Dioxane-d8		32		15 - 110			06/18/19 08:04	06/28/19 13:24	1

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.6	0.80	ng/L		06/24/19 06:55	07/04/19 05:30	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.51	ng/L		06/24/19 06:55	07/04/19 05:30	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.61	ng/L		06/24/19 06:55	07/04/19 05:30	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.73	ng/L		06/24/19 06:55	07/04/19 05:30	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.51	ng/L		06/24/19 06:55	07/04/19 05:30	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.22	ng/L		06/24/19 06:55	07/04/19 05:30	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.62	ng/L		06/24/19 06:55	07/04/19 05:30	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.43	ng/L		06/24/19 06:55	07/04/19 05:30	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.47	ng/L		06/24/19 06:55	07/04/19 05:30	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.48	ng/L		06/24/19 06:55	07/04/19 05:30	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.74	ng/L		06/24/19 06:55	07/04/19 05:30	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.39	ng/L		06/24/19 06:55	07/04/19 05:30	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.64	ng/L		06/24/19 06:55	07/04/19 05:30	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.6	0.76	ng/L		06/24/19 06:55	07/04/19 05:30	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	0.49	ng/L		06/24/19 06:55	07/04/19 05:30	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.72	ng/L		06/24/19 06:55	07/04/19 05:30	1
Perfluorooctanesulfonamide (PFOSA)	ND		8.0	8.0	ng/L		06/24/19 06:55	07/04/19 05:30	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		16	1.4	ng/L		06/24/19 06:55	07/04/19 05:30	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		16	1.2	ng/L		06/24/19 06:55	07/04/19 05:30	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		16	3.7	ng/L		06/24/19 06:55	07/04/19 05:30	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		16	2.3	ng/L		06/24/19 06:55	07/04/19 05:30	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>			<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>	
18O2 PFHxS	118		50 - 150			06/24/19 06:55	07/04/19 05:30	1	
13C4 PFHpA	79		50 - 150			06/24/19 06:55	07/04/19 05:30	1	
13C4 PFOA	82		50 - 150			06/24/19 06:55	07/04/19 05:30	1	
13C4 PFOS	83		50 - 150			06/24/19 06:55	07/04/19 05:30	1	
13C5 PFNA	72		50 - 150			06/24/19 06:55	07/04/19 05:30	1	
13C4 PFBA	87		25 - 150			06/24/19 06:55	07/04/19 05:30	1	
13C2 PFHxA	69		50 - 150			06/24/19 06:55	07/04/19 05:30	1	
13C2 PFDA	80		50 - 150			06/24/19 06:55	07/04/19 05:30	1	
13C2 PFUnA	72		50 - 150			06/24/19 06:55	07/04/19 05:30	1	
13C2 PFDoA	72		50 - 150			06/24/19 06:55	07/04/19 05:30	1	
13C8 FOSA	64		25 - 150			06/24/19 06:55	07/04/19 05:30	1	
13C5 PFPeA	82		25 - 150			06/24/19 06:55	07/04/19 05:30	1	
13C2 PFTeDA	75		50 - 150			06/24/19 06:55	07/04/19 05:30	1	
d3-NMeFOSAA	69		50 - 150			06/24/19 06:55	07/04/19 05:30	1	
d5-NEtFOSAA	83		50 - 150			06/24/19 06:55	07/04/19 05:30	1	
M2-6:2 FTS	115		25 - 150			06/24/19 06:55	07/04/19 05:30	1	
M2-8:2 FTS	77		25 - 150			06/24/19 06:55	07/04/19 05:30	1	

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# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-155027-1

**Client Sample ID: GTA-PZ-32-061419**

**Lab Sample ID: 480-155027-3**

**Date Collected: 06/14/19 16:00**

**Matrix: Water**

**Date Received: 06/14/19 18:18**

**Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3 PFBS	108		50 - 150	06/24/19 06:55	07/04/19 05:30	1

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# Isotope Dilution Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-155027-1

## Method: 8270D SIM ID - Semivolatle Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (15-110)
480-155027-1	SSA-PZ-62D-061419	34
480-155027-3	GTA-PZ-32-061419	32
LCS 480-478262/2-A	Lab Control Sample	32
MB 480-478262/1-A	Method Blank	29

#### Surrogate Legend

DXE = 1,4-Dioxane-d8

## Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxS (50-150)	PFHpA (50-150)	PFOA (50-150)	PFOS (50-150)	PFNA (50-150)	PFBA (25-150)	PFHxA (50-150)	PFDA (50-150)
480-155027-1	SSA-PZ-62D-061419	129	74	80	94	72	78	71	83
480-155027-2	FIELD BLANK - 061419	122	87	87	91	83	86	84	92
480-155027-3	GTA-PZ-32-061419	118	79	82	83	72	87	69	80
LCS 200-144394/2-A	Lab Control Sample	111	87	97	104	91	93	88	99
MB 200-144394/1-A	Method Blank	92	56	63	65	58	63	56	67

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFUnA (50-150)	PFDoA (50-150)	PFOSA (25-150)	PFPeA (25-150)	PFTDA (50-150)	-NMeFOS/ (50-150)	-NEtFOS/ (50-150)	M262FTS (25-150)
480-155027-1	SSA-PZ-62D-061419	82	82	60	67	89	70	93	99
480-155027-2	FIELD BLANK - 061419	85	80	51	91	79	81	96	113
480-155027-3	GTA-PZ-32-061419	72	72	64	82	75	69	83	115
LCS 200-144394/2-A	Lab Control Sample	105	97	91	84	92	88	109	119
MB 200-144394/1-A	Method Blank	65	64	44	61	61	58	68	75

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M282FTS (25-150)	3C3-PFB: (50-150)
480-155027-1	SSA-PZ-62D-061419	85	124
480-155027-2	FIELD BLANK - 061419	94	123
480-155027-3	GTA-PZ-32-061419	77	108
LCS 200-144394/2-A	Lab Control Sample	118	127
MB 200-144394/1-A	Method Blank	76	96

#### Surrogate Legend

PFHxS = 18O2 PFHxS  
PFHpA = 13C4 PFHpA  
PFOA = 13C4 PFOA  
PFOS = 13C4 PFOS  
PFNA = 13C5 PFNA  
PFBA = 13C4 PFBA  
PFHxA = 13C2 PFHxA  
PFDA = 13C2 PFDA  
PFUnA = 13C2 PFUnA  
PFDoA = 13C2 PFDoA  
PFOSA = 13C8 FOSA  
PFPeA = 13C5 PFPeA  
PFTDA = 13C2 PFTeDA

# Isotope Dilution Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026  
d3-NMeFOSAA = d3-NMeFOSAA  
d5-NEtFOSAA = d5-NEtFOSAA  
M262FTS = M2-6:2 FTS  
M282FTS = M2-8:2 FTS  
13C3-PFBS = 13C3 PFBS

Job ID: 480-155027-1

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# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-155027-1

## Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

**Lab Sample ID: MB 480-478262/1-A**  
**Matrix: Water**  
**Analysis Batch: 479498**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 478262**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		06/18/19 08:04	06/25/19 14:40	1
Isotope Dilution	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	29		15 - 110				06/18/19 08:04	06/25/19 14:40	1

**Lab Sample ID: LCS 480-478262/2-A**  
**Matrix: Water**  
**Analysis Batch: 479498**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 478262**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,4-Dioxane	1.00	1.13		ug/L		113	40 - 140
Isotope Dilution	%Recovery	LCS Qualifier	Limits				
1,4-Dioxane-d8	32		15 - 110				

## Method: 537 (modified) - Fluorinated Alkyl Substances

**Lab Sample ID: MB 200-144394/1-A**  
**Matrix: Water**  
**Analysis Batch: 144725**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 144394**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	1.0	ng/L		06/24/19 06:55	07/03/19 23:25	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.63	ng/L		06/24/19 06:55	07/03/19 23:25	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.76	ng/L		06/24/19 06:55	07/03/19 23:25	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.91	ng/L		06/24/19 06:55	07/03/19 23:25	1
Perfluorooctanoic acid (PFOA)	0.762	J	2.0	0.63	ng/L		06/24/19 06:55	07/03/19 23:25	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		06/24/19 06:55	07/03/19 23:25	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.77	ng/L		06/24/19 06:55	07/03/19 23:25	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.53	ng/L		06/24/19 06:55	07/03/19 23:25	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.59	ng/L		06/24/19 06:55	07/03/19 23:25	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	0.60	ng/L		06/24/19 06:55	07/03/19 23:25	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.92	ng/L		06/24/19 06:55	07/03/19 23:25	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.49	ng/L		06/24/19 06:55	07/03/19 23:25	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		06/24/19 06:55	07/03/19 23:25	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.95	ng/L		06/24/19 06:55	07/03/19 23:25	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.61	ng/L		06/24/19 06:55	07/03/19 23:25	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.90	ng/L		06/24/19 06:55	07/03/19 23:25	1
Perfluorooctanesulfonamide (PFOSA)	ND		10	10	ng/L		06/24/19 06:55	07/03/19 23:25	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		20	1.7	ng/L		06/24/19 06:55	07/03/19 23:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		20	1.5	ng/L		06/24/19 06:55	07/03/19 23:25	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		20	4.6	ng/L		06/24/19 06:55	07/03/19 23:25	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		20	2.9	ng/L		06/24/19 06:55	07/03/19 23:25	1

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-155027-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
18O2 PFHxS	92		50 - 150	06/24/19 06:55	07/03/19 23:25	1
13C4 PFHpA	56		50 - 150	06/24/19 06:55	07/03/19 23:25	1
13C4 PFOA	63		50 - 150	06/24/19 06:55	07/03/19 23:25	1
13C4 PFOS	65		50 - 150	06/24/19 06:55	07/03/19 23:25	1
13C5 PFNA	58		50 - 150	06/24/19 06:55	07/03/19 23:25	1
13C4 PFBA	63		25 - 150	06/24/19 06:55	07/03/19 23:25	1
13C2 PFHxA	56		50 - 150	06/24/19 06:55	07/03/19 23:25	1
13C2 PFDA	67		50 - 150	06/24/19 06:55	07/03/19 23:25	1
13C2 PFUnA	65		50 - 150	06/24/19 06:55	07/03/19 23:25	1
13C2 PFDoA	64		50 - 150	06/24/19 06:55	07/03/19 23:25	1
13C8 FOSA	44		25 - 150	06/24/19 06:55	07/03/19 23:25	1
13C5 PFPeA	61		25 - 150	06/24/19 06:55	07/03/19 23:25	1
13C2 PFTeDA	61		50 - 150	06/24/19 06:55	07/03/19 23:25	1
d3-NMeFOSAA	58		50 - 150	06/24/19 06:55	07/03/19 23:25	1
d5-NEtFOSAA	68		50 - 150	06/24/19 06:55	07/03/19 23:25	1
M2-6:2 FTS	75		25 - 150	06/24/19 06:55	07/03/19 23:25	1
M2-8:2 FTS	76		25 - 150	06/24/19 06:55	07/03/19 23:25	1
13C3 PFBS	96		50 - 150	06/24/19 06:55	07/03/19 23:25	1

**Lab Sample ID: LCS 200-144394/2-A**

**Matrix: Water**

**Analysis Batch: 144725**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 144394**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Perfluoropentanoic acid (PFPeA)	40.0	47.4		ng/L		119	50 - 150	
Perfluorohexanoic acid (PFHxA)	40.0	40.1		ng/L		100	70 - 130	
Perfluoroheptanoic acid (PFHpA)	40.0	44.0		ng/L		110	70 - 130	
Perfluorooctanoic acid (PFOA)	40.0	40.2		ng/L		100	70 - 130	
Perfluorononanoic acid (PFNA)	40.0	38.8		ng/L		97	70 - 130	
Perfluorodecanoic acid (PFDA)	40.0	41.3		ng/L		103	70 - 130	
Perfluoroundecanoic acid (PFUnA)	40.0	39.9		ng/L		100	70 - 130	
Perfluorododecanoic acid (PFDoA)	40.0	37.5		ng/L		94	70 - 130	
Perfluorotridecanoic acid (PFTriA)	40.0	39.9		ng/L		100	70 - 130	
Perfluorotetradecanoic acid (PFTeA)	40.0	40.1		ng/L		100	70 - 130	
Perfluorobutanesulfonic acid (PFBS)	35.4	28.8		ng/L		81	70 - 130	
Perfluorohexanesulfonic acid (PFHxS)	36.4	36.3		ng/L		100	70 - 130	
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	37.7		ng/L		99	50 - 150	
Perfluorooctanesulfonic acid (PFOS)	37.1	35.5		ng/L		96	70 - 130	
Perfluorodecanesulfonic acid (PFDS)	38.6	37.7		ng/L		98	50 - 150	
Perfluorooctanesulfonamide (PFOSA)	40.0	43.4		ng/L		109	50 - 150	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	41.0		ng/L		102	70 - 130	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	39.8		ng/L		100	70 - 130	

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
 Project/Site: Little Valley #905026

Job ID: 480-155027-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LCS 200-144394/2-A**  
**Matrix: Water**  
**Analysis Batch: 144725**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 144394**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	31.9		ng/L		84	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	41.1		ng/L		107	50 - 150

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
18O2 PFHxS	111		50 - 150
13C4 PFHpA	87		50 - 150
13C4 PFOA	97		50 - 150
13C4 PFOS	104		50 - 150
13C5 PFNA	91		50 - 150
13C4 PFBA	93		25 - 150
13C2 PFHxA	88		50 - 150
13C2 PFDA	99		50 - 150
13C2 PFUnA	105		50 - 150
13C2 PFDoA	97		50 - 150
13C8 FOSA	91		25 - 150
13C5 PFPeA	84		25 - 150
13C2 PFTeDA	92		50 - 150
d3-NMeFOSAA	88		50 - 150
d5-NEtFOSAA	109		50 - 150
M2-6:2 FTS	119		25 - 150
M2-8:2 FTS	118		25 - 150
13C3 PFBS	127		50 - 150



# QC Association Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-155027-1

## GC/MS Semi VOA

### Prep Batch: 478262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-155027-1	SSA-PZ-62D-061419	Total/NA	Water	3510C	
480-155027-3	GTA-PZ-32-061419	Total/NA	Water	3510C	
MB 480-478262/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-478262/2-A	Lab Control Sample	Total/NA	Water	3510C	

### Analysis Batch: 479498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-478262/1-A	Method Blank	Total/NA	Water	8270D SIM ID	478262
LCS 480-478262/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	478262

### Analysis Batch: 480156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-155027-1	SSA-PZ-62D-061419	Total/NA	Water	8270D SIM ID	478262
480-155027-3	GTA-PZ-32-061419	Total/NA	Water	8270D SIM ID	478262

## LCMS

### Prep Batch: 144394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-155027-1	SSA-PZ-62D-061419	Total/NA	Water	3535	
480-155027-2	FIELD BLANK - 061419	Total/NA	Water	3535	
480-155027-3	GTA-PZ-32-061419	Total/NA	Water	3535	
MB 200-144394/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-144394/2-A	Lab Control Sample	Total/NA	Water	3535	

### Analysis Batch: 144725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-155027-1	SSA-PZ-62D-061419	Total/NA	Water	537 (modified)	144394
480-155027-2	FIELD BLANK - 061419	Total/NA	Water	537 (modified)	144394
480-155027-3	GTA-PZ-32-061419	Total/NA	Water	537 (modified)	144394
MB 200-144394/1-A	Method Blank	Total/NA	Water	537 (modified)	144394
LCS 200-144394/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	144394

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-155027-1

**Client Sample ID: SSA-PZ-62D-061419**

**Lab Sample ID: 480-155027-1**

**Date Collected: 06/14/19 12:40**

**Matrix: Water**

**Date Received: 06/14/19 18:18**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			478262	06/18/19 08:04	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	480156	06/28/19 13:01	RJS	TAL BUF
Total/NA	Prep	3535			144394	06/24/19 06:55	TPB	TAL BUR
Total/NA	Analysis	537 (modified)		1	144725	07/04/19 04:58	BWC	TAL BUR

**Client Sample ID: FIELD BLANK - 061419**

**Lab Sample ID: 480-155027-2**

**Date Collected: 06/14/19 12:55**

**Matrix: Water**

**Date Received: 06/14/19 18:18**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			144394	06/24/19 06:55	TPB	TAL BUR
Total/NA	Analysis	537 (modified)		1	144725	07/04/19 05:14	BWC	TAL BUR

**Client Sample ID: GTA-PZ-32-061419**

**Lab Sample ID: 480-155027-3**

**Date Collected: 06/14/19 16:00**

**Matrix: Water**

**Date Received: 06/14/19 18:18**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			478262	06/18/19 08:04	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	480156	06/28/19 13:24	RJS	TAL BUF
Total/NA	Prep	3535			144394	06/24/19 06:55	TPB	TAL BUR
Total/NA	Analysis	537 (modified)		1	144725	07/04/19 05:30	BWC	TAL BUR

**Laboratory References:**

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

# Accreditation/Certification Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-155027-1

## Laboratory: Eurofins TestAmerica, Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-20

## Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP		L2336	02-25-20
ANAB	DoD		L2336	02-25-20
Connecticut	State Program	1	PH-0751	09-30-19
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-01-20
Florida	NELAP	4	E87467	06-30-20
Minnesota	NELAP	5	050-999-436	12-31-19
New Hampshire	NELAP	1	2006	12-18-19
New Jersey	NELAP	2	VT972	06-30-20
New York	NELAP	2	10391	04-01-20
Pennsylvania	NELAP	3	68-00489	04-30-20
Pennsylvania	NELAP		68-00489	04-30-20
Rhode Island	State Program	1	LAO00298	12-30-19
US Fish & Wildlife	Federal		LE-058448-0	07-31-19
USDA	Federal		P330-11-00093	07-24-20
Vermont	State Program	1	VT-4000	12-31-19
Virginia	NELAP	3	460209	12-14-19

# Method Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-155027-1

Method	Method Description	Protocol	Laboratory
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL BUR
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
3535	Solid-Phase Extraction (SPE)	SW846	TAL BUR

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

# Sample Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-155027-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-155027-1	SSA-PZ-62D-061419	Water	06/14/19 12:40	06/14/19 18:18	
480-155027-2	FIELD BLANK - 061419	Water	06/14/19 12:55	06/14/19 18:18	
480-155027-3	GTA-PZ-32-061419	Water	06/14/19 16:00	06/14/19 18:18	

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THE LEADER IN ENVIRONMENTAL TESTING  
TestAmerica Laboratories, Inc.  
TAL-8210 (0713)

Regulatory Program:  DW  NPDES  RCRA  Other:

Project Manager: <u>Steve Choiniere</u> Tell/Fax: _____ Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below: <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Site Contact: <u>Matt Holquist</u> Date: <u>6/14/19</u> Carrier: <u>hand deliver</u>		COC No.: _____ of _____ COCs Sampler: <u>WEST 1116</u> For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.: _____	
Company Name: <u>NYSDEC/AECOM/WATS</u> Address: <u>95 Perry St., Suite 300</u> City/State/Zip: <u>Buffalo, NY 14203</u> Phone: <u>716-206-5100</u> Fax: <u>716-206-5199</u> Project Name: <u>Little Valley Site</u> Site: <u>NYSDEC # 905026</u> P O # _____		Lab Contact: Perform MS / MSD (Y / N) Filtered Sample (Y / N)		Sample Specific Notes: (MOB) 1,4 Diskette 8270 D.S.M. NRID - (List 21 Analytes) PFC-IDA-PFAS (Standard)	
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=Grab) Matrix # of Cont.		Sample Date Sample Time Sample Type (C=Comp, G=Grab) Matrix # of Cont.		Sample Specific Notes: 480-155027 Chain of Custody	
SSA-P2-62D-061419 Field Blank-061419 GTA-P2-32-061419		6/14/19 12:40 G Water 4 6/14/19 12:55 - Water 2 6/14/19 16:00 G Water 4		X X X	
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3; 5=NaOH; 6= Other Possible Hazard Identification: _____ Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.					
Special Instructions/QC Requirements & Comments: Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months					
Custody Seal No.: <u>715739</u> Company: <u>WAT</u> Date/Time: <u>6/19/1816</u>		Cooler Temp. (°C): Obs'd: <u>44</u> Corrd: _____ Company: _____		Therm ID No.: _____ Date/Time: _____	
Relinquished by: <u>[Signature]</u> Date/Time: _____		Received by: <u>[Signature]</u> Date/Time: _____		Date/Time: _____	
Relinquished by: _____ Date/Time: _____		Received in Laboratory by: <u>[Signature]</u> Date/Time: _____		Date/Time: <u>6/14/19 1818</u>	



**Eurofins TestAmerica, Buffalo**

10 Hazelwood Drive  
Amherst, NY 14228-2298  
Phone: 716-691-2600 Fax: 716-691-7991

**Chain of Custody Record**



Eurofins  
Environment Testing  
TestAmerica

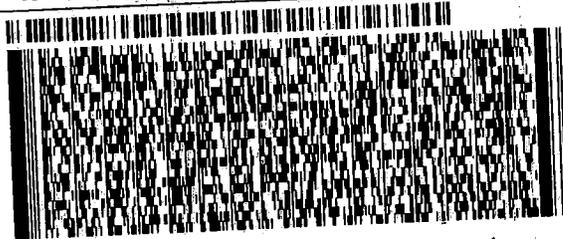
<b>Client Information (Sub Contract Lab)</b>		Lab PM: Johnson, Oriette S	Job #: 480-155027-1						
Shipping/Receiving		E-Mail: oriette.johnson@testamericainc.com	Page 1 of 1						
Company: TestAmerica Laboratories, Inc.		Address: 30 Community Drive, Suite 11, South Burlington State, Zip: VT, 05403	Accreditations Required (See note): NELAP - New York						
Due Date Requested: 6/26/2019		PO #:	Analysis Requested						
TAT Requested (days):		WO #:							
Project #: 48004368		Project Name: Little Valley #905026	Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify) Other:						
Site:		Site:							
<b>Sample Identification - Client ID (Lab ID)</b>									
Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=metal, B=tissue, A=air)	Field Filtered Sample (Yes or No)	PFC (DMF, MSIP, MCO, FONG)	PFC (DMA/355, IVWT (MOD) PFA's, Standard List (21)	Total Number of Containers	Special Instructions/Note:
SSA-PZ-62D-061419 (480-155027-1)	6/14/19	12:40 Eastern	Water	Water	X	X	X	2	
FIELD BLANK - 061419 (480-155027-2)	6/14/19	12:55 Eastern	Water	Water	X	X	X	2	
GTA-PZ-32-061419 (480-155027-3)	6/14/19	16:00 Eastern	Water	Water	X	X	X	2	
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.									
<b>Possible Hazard Identification</b>									
Unconfirmed									
Deliverable Requested: I, II, III, IV, Other (specify)									
Empty Kit Relinquished by:									
Relinquished by: <i>Chris Lane</i>									
Relinquished by: <i>Taylor Johnson</i>									
Relinquished by:									
Custody Seals Intact: <i>NA</i>									
Custody Seal No.: <i>0.2</i>									
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)									
Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months									
Special Instructions/QC Requirements:									
Primary Deliverable Rank: 2									
Date:									
Date/Time: <i>6-17-19 16:00</i>									
Company: <i>AAA</i>									
Received by: <i>Taylor Johnson</i>									
Date/Time: <i>6/18/19 10:18</i>									
Company: <i>AAA</i>									
Received by:									
Date/Time:									
Company:									
Cooler Temperature(s) °C and Other Remarks: <i>0.2</i>									



AMHERST NY 14228  
UNITED STATES US

BILL RECIPIENT

TO **SAMPLE MGT.**  
**TA BURLINGTON**  
**30 COMMUNITY DRIVE**  
**SUITE 11**  
**SOUTH BURLINGTON VT 05403**  
(802) 860-1990 REF: BURLINGTON  
DEPT: SAMPLE CONTROL



**FedEx**  
Express

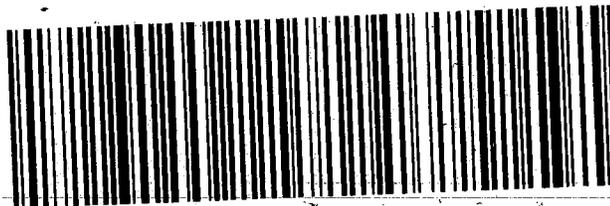


TRK# 4276 0720 0243  
0201

TUE 18 JUN 10:30A  
PRIORITY-OVERNIGHT

**XH BTVA**

05403  
VT-US BTV



## Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-155027-1

**Login Number: 155027**

**List Number: 1**

**Creator: Hulbert, Michael J**

**List Source: Eurofins TestAmerica, Buffalo**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AECOM / NYSDEC
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

## Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-155027-1

**Login Number: 155027**

**List Number: 2**

**Creator: Mohn, Taylor J**

**List Source: Eurofins TestAmerica, Burlington**

**List Creation: 06/18/19 02:15 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.2°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo  
10 Hazelwood Drive  
Amherst, NY 14228-2298  
Tel: (716)691-2600

Laboratory Job ID: 480-157008-1  
Client Project/Site: Little Valley #905026

For:  
New York State D.E.C.  
625 Broadway 9th Floor  
Albany, New York 12233-7258

Attn: George Momberger



Authorized for release by:  
8/14/2019 11:59:57 AM

Joe Giacomazza, Project Management Assistant II  
[joe.giacomazza@testamericainc.com](mailto:joe.giacomazza@testamericainc.com)

Designee for

Orlette Johnson, Senior Project Manager  
(484)685-0864  
[orlette.johnson@testamericainc.com](mailto:orlette.johnson@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



---

Joe Giacomazza  
Project Management Assistant II  
8/14/2019 11:59:57 AM



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# Definitions/Glossary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

### General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## Job ID: 480-157008-1

### Laboratory: Eurofins TestAmerica, Buffalo

#### Narrative

#### Job Narrative 480-157008-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 7/31/2019 6:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9° C.

#### GC/MS VOA

Method(s) 524.2: The low level laboratory control sample (LLCS) for analytical batch 480-485271 recovered outside control limits for the following analyte: Methylene Chloride. This analyte was biased high in the LLCS and was not detected in the associated samples; therefore, the data have been reported. The following samples are impacted: LVRA-WSA-PZ45D-073119 (480-157008-2), LVRA-GTA-PZ32-073119 (480-157008-4) and TRIP BLANK-073119 (480-157008-13).

Method(s) 524.2: The analyte Methylene Chloride was outside recovery limits, biased high, in the Low Level Laboratory Control Sample (LLCS) for analytical batch 480-485271. Methylene Chloride was detected in the following samples: LVRA-WSA-PZ45D-PDB-073119 (480-157008-1), LVRA-GTA-PZ32-PDB-073119 (480-157008-3), LVRA-SSA-PZ62D-PDB-073119 (480-157008-5), LVRA-NLA-PZ55D-PDB--073119 (480-157008-6), LVRA-NLA-PZ46-PDB-073119 (480-157008-7), LVRA-WSA-PZ39-PDB--073119 (480-157008-8), LVRA-GTA-PZ25-PDB--073119 (480-157008-9) and LVRA-GTA-PZ5-PDB-073119 (480-157008-10). Methylene Chloride is a common laboratory contaminate, therefore any detection may potentially be due to laboratory contamination and should be evaluated accordingly.

Method(s) 524.2: The analyte Methylene Chloride was outside recovery limits, biased high, in the Low Level Laboratory Control Sample (LLCS) for analytical batch 480-485481. Methylene Chloride was detected in the following samples: LVRA-GTA-PZ6D-PDB-073119 (480-157008-11) and LVRA-GTA-PZ38-PDB-073119 (480-157008-12). Methylene Chloride is a common laboratory contaminate, therefore any detection may potentially be due to laboratory contamination and should be evaluated accordingly.

Method(s) 524.2: The following sample was diluted to bring the concentration of target analytes within the calibration range: LVRA-GTA-PZ6D-PDB-073119 (480-157008-11). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### HPLC/IC

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### General Chemistry

Method(s) SM 3500 FE D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: LVRA-WSA-PZ45D-073119 (480-157008-2) and LVRA-GTA-PZ32-073119 (480-157008-4).

Method(s) 353.2: The following sample was analyzed outside of analytical holding time due to system outages. LVRA-WSA-PZ45D-073119 (480-157008-2)

Method(s) SM 5310C, SM 5310D: The sample duplicate precision for the following sample associated with analytical batch 480-486343 was outside control limits: (480-157032-Q-1). Both the sample and duplicate results are below the limit of quantitation and the associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Detection Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## Client Sample ID: LVRA-WSA-PZ45D-PDB-073119

Lab Sample ID: 480-157008-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	48		5.0	1.0	ug/L	1		524.2	Total/NA
Methylene Chloride	25	*	2.5	0.99	ug/L	1		524.2	Total/NA
Tetrachloroethene	1.9		0.50	0.20	ug/L	1		524.2	Total/NA
Trichloroethene	2.5		0.50	0.18	ug/L	1		524.2	Total/NA

## Client Sample ID: LVRA-WSA-PZ45D-073119

Lab Sample ID: 480-157008-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.6	J	5.0	1.0	ug/L	1		524.2	Total/NA
Trichloroethene	2.4		0.50	0.18	ug/L	1		524.2	Total/NA
Chloride	38.2		0.50	0.28	mg/L	1		300.0	Total/NA
Sulfate	9.0		2.0	0.35	mg/L	1		300.0	Total/NA
Nitrate as N	0.95	H	0.050	0.020	mg/L	1		353.2	Total/NA
Nitrate Nitrite as N	0.95		0.050	0.020	mg/L	1		353.2	Total/NA
Alkalinity, Total	131		5.0	0.79	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate	131		5.0	0.79	mg/L	1		SM 2320B	Total/NA

## Client Sample ID: LVRA-GTA-PZ32-PDB-073119

Lab Sample ID: 480-157008-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	22		5.0	1.0	ug/L	1		524.2	Total/NA
Methylene Chloride	8.8	*	2.5	0.99	ug/L	1		524.2	Total/NA
Tetrachloroethene	0.67		0.50	0.20	ug/L	1		524.2	Total/NA
Trichloroethene	4.9		0.50	0.18	ug/L	1		524.2	Total/NA

## Client Sample ID: LVRA-GTA-PZ32-073119

Lab Sample ID: 480-157008-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.2	J	5.0	1.0	ug/L	1		524.2	Total/NA
Trichloroethene	4.3		0.50	0.18	ug/L	1		524.2	Total/NA
Chloride	12.7		0.50	0.28	mg/L	1		300.0	Total/NA
Sulfate	11.0		2.0	0.35	mg/L	1		300.0	Total/NA
Nitrate as N	0.48		0.050	0.020	mg/L	1		353.2	Total/NA
Nitrate Nitrite as N	0.48		0.050	0.020	mg/L	1		353.2	Total/NA
Alkalinity, Total	110		5.0	0.79	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate	110		5.0	0.79	mg/L	1		SM 2320B	Total/NA

## Client Sample ID: LVRA-SSA-PZ62D-PDB-073119

Lab Sample ID: 480-157008-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	37		5.0	1.0	ug/L	1		524.2	Total/NA
Methylene Chloride	7.4	*	2.5	0.99	ug/L	1		524.2	Total/NA
Tetrachloroethene	0.51		0.50	0.20	ug/L	1		524.2	Total/NA
Trichloroethene	2.4		0.50	0.18	ug/L	1		524.2	Total/NA

## Client Sample ID: LVRA-NLA-PZ55D-PDB--073119

Lab Sample ID: 480-157008-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	34		5.0	1.0	ug/L	1		524.2	Total/NA
Methylene Chloride	6.0	*	2.5	0.99	ug/L	1		524.2	Total/NA
Tetrachloroethene	0.39	J	0.50	0.20	ug/L	1		524.2	Total/NA
Trichloroethene	2.5		0.50	0.18	ug/L	1		524.2	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

# Detection Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## Client Sample ID: LVRA-NLA-PZ46-PDB-073119

Lab Sample ID: 480-157008-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	29		5.0	1.0	ug/L	1		524.2	Total/NA
Methylene Chloride	6.5	*	2.5	0.99	ug/L	1		524.2	Total/NA

## Client Sample ID: LVRA-WSA-PZ39-PDB--073119

Lab Sample ID: 480-157008-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	21		5.0	1.0	ug/L	1		524.2	Total/NA
Methylene Chloride	8.6	*	2.5	0.99	ug/L	1		524.2	Total/NA
Tetrachloroethene	0.21	J	0.50	0.20	ug/L	1		524.2	Total/NA

## Client Sample ID: LVRA-GTA-PZ25-PDB--073119

Lab Sample ID: 480-157008-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	24		5.0	1.0	ug/L	1		524.2	Total/NA
Methylene Chloride	4.3	*	2.5	0.99	ug/L	1		524.2	Total/NA
Trichloroethene	0.68		0.50	0.18	ug/L	1		524.2	Total/NA

## Client Sample ID: LVRA-GTA-PZ5-PDB-073119

Lab Sample ID: 480-157008-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	40		5.0	1.0	ug/L	1		524.2	Total/NA
Methylene Chloride	6.4	*	2.5	0.99	ug/L	1		524.2	Total/NA
Tetrachloroethene	0.32	J	0.50	0.20	ug/L	1		524.2	Total/NA
Trichloroethene	3.0		0.50	0.18	ug/L	1		524.2	Total/NA

## Client Sample ID: LVRA-GTA-PZ6D-PDB-073119

Lab Sample ID: 480-157008-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	34		5.0	1.0	ug/L	1		524.2	Total/NA
Tetrachloroethene	4.4		0.50	0.20	ug/L	1		524.2	Total/NA
Trichloroethene	0.34	J	0.50	0.18	ug/L	1		524.2	Total/NA
Methylene Chloride - DL	76	*	5.0	2.0	ug/L	2		524.2	Total/NA

## Client Sample ID: LVRA-GTA-PZ38-PDB-073119

Lab Sample ID: 480-157008-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	37		5.0	1.0	ug/L	1		524.2	Total/NA
Methylene Chloride	6.1	*	2.5	0.99	ug/L	1		524.2	Total/NA
Tetrachloroethene	0.29	J	0.50	0.20	ug/L	1		524.2	Total/NA
Trichloroethene	0.47	J	0.50	0.18	ug/L	1		524.2	Total/NA

## Client Sample ID: TRIP BLANK-073119

Lab Sample ID: 480-157008-13

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-WSA-PZ45D-PDB-073119**

**Lab Sample ID: 480-157008-1**

Date Collected: 07/31/19 08:40

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/05/19 09:51	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/05/19 09:51	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/05/19 09:51	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/05/19 09:51	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/05/19 09:51	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/05/19 09:51	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/05/19 09:51	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 09:51	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/05/19 09:51	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 09:51	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/05/19 09:51	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 09:51	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/05/19 09:51	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/05/19 09:51	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/05/19 09:51	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 09:51	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/05/19 09:51	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 09:51	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/05/19 09:51	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/05/19 09:51	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/05/19 09:51	1
2-Hexanone	ND		5.0	1.0	ug/L			08/05/19 09:51	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/05/19 09:51	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/05/19 09:51	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/05/19 09:51	1
<b>Acetone</b>	<b>48</b>		5.0	1.0	ug/L			08/05/19 09:51	1
Acrylonitrile	ND		10	2.2	ug/L			08/05/19 09:51	1
Allyl chloride	ND		0.50	0.22	ug/L			08/05/19 09:51	1
Benzene	ND		0.50	0.13	ug/L			08/05/19 09:51	1
Bromobenzene	ND		0.50	0.13	ug/L			08/05/19 09:51	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/05/19 09:51	1
Bromoform	ND		0.50	0.13	ug/L			08/05/19 09:51	1
Bromomethane	ND		0.50	0.23	ug/L			08/05/19 09:51	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/05/19 09:51	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/05/19 09:51	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/05/19 09:51	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/05/19 09:51	1
Chloroethane	ND		0.50	0.20	ug/L			08/05/19 09:51	1
Chloroform	ND		0.50	0.14	ug/L			08/05/19 09:51	1
Chloromethane	ND		0.50	0.17	ug/L			08/05/19 09:51	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/05/19 09:51	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/05/19 09:51	1
Dibromomethane	ND		0.50	0.17	ug/L			08/05/19 09:51	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/05/19 09:51	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/05/19 09:51	1
Ethyl ether	ND		0.50	0.12	ug/L			08/05/19 09:51	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/05/19 09:51	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/05/19 09:51	1
Iodomethane	ND		0.50	0.15	ug/L			08/05/19 09:51	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-WSA-PZ45D-PDB-073119**

**Lab Sample ID: 480-157008-1**

Date Collected: 07/31/19 08:40

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/05/19 09:51	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/05/19 09:51	1
<b>Methylene Chloride</b>	<b>25</b>	*	2.5	0.99	ug/L			08/05/19 09:51	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/05/19 09:51	1
Naphthalene	ND		0.50	0.15	ug/L			08/05/19 09:51	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/05/19 09:51	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/05/19 09:51	1
o-Xylene	ND		0.50	0.12	ug/L			08/05/19 09:51	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/05/19 09:51	1
Styrene	ND		0.50	0.13	ug/L			08/05/19 09:51	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/05/19 09:51	1
<b>Tetrachloroethene</b>	<b>1.9</b>		0.50	0.20	ug/L			08/05/19 09:51	1
Toluene	ND		0.50	0.10	ug/L			08/05/19 09:51	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/05/19 09:51	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/05/19 09:51	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/05/19 09:51	1
<b>Trichloroethene</b>	<b>2.5</b>		0.50	0.18	ug/L			08/05/19 09:51	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/05/19 09:51	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/05/19 09:51	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	2.3	TJ	ug/L		3.12			08/05/19 09:51	1
Ethyl Acetate	6.9	TJN	ug/L		4.47	141-78-6		08/05/19 09:51	1
Unknown	0.52	TJ	ug/L		7.17			08/05/19 09:51	1
Unknown	3.3	TJ	ug/L		9.76			08/05/19 09:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	110		80 - 120		08/05/19 09:51	1
4-Bromofluorobenzene (Surr)	90		80 - 120		08/05/19 09:51	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-WSA-PZ45D-073119**

**Lab Sample ID: 480-157008-2**

Date Collected: 07/31/19 09:45

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/05/19 10:16	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/05/19 10:16	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/05/19 10:16	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/05/19 10:16	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/05/19 10:16	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/05/19 10:16	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/05/19 10:16	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 10:16	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/05/19 10:16	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 10:16	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/05/19 10:16	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 10:16	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/05/19 10:16	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/05/19 10:16	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/05/19 10:16	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 10:16	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/05/19 10:16	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 10:16	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/05/19 10:16	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/05/19 10:16	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/05/19 10:16	1
2-Hexanone	ND		5.0	1.0	ug/L			08/05/19 10:16	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/05/19 10:16	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/05/19 10:16	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/05/19 10:16	1
<b>Acetone</b>	<b>1.6</b>	<b>J</b>	5.0	1.0	ug/L			08/05/19 10:16	1
Acrylonitrile	ND		10	2.2	ug/L			08/05/19 10:16	1
Allyl chloride	ND		0.50	0.22	ug/L			08/05/19 10:16	1
Benzene	ND		0.50	0.13	ug/L			08/05/19 10:16	1
Bromobenzene	ND		0.50	0.13	ug/L			08/05/19 10:16	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/05/19 10:16	1
Bromoform	ND		0.50	0.13	ug/L			08/05/19 10:16	1
Bromomethane	ND		0.50	0.23	ug/L			08/05/19 10:16	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/05/19 10:16	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/05/19 10:16	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/05/19 10:16	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/05/19 10:16	1
Chloroethane	ND		0.50	0.20	ug/L			08/05/19 10:16	1
Chloroform	ND		0.50	0.14	ug/L			08/05/19 10:16	1
Chloromethane	ND		0.50	0.17	ug/L			08/05/19 10:16	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/05/19 10:16	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/05/19 10:16	1
Dibromomethane	ND		0.50	0.17	ug/L			08/05/19 10:16	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/05/19 10:16	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/05/19 10:16	1
Ethyl ether	ND		0.50	0.12	ug/L			08/05/19 10:16	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/05/19 10:16	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/05/19 10:16	1
Iodomethane	ND		0.50	0.15	ug/L			08/05/19 10:16	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-WSA-PZ45D-073119**

**Lab Sample ID: 480-157008-2**

Date Collected: 07/31/19 09:45

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/05/19 10:16	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/05/19 10:16	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/05/19 10:16	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/05/19 10:16	1
Naphthalene	ND		0.50	0.15	ug/L			08/05/19 10:16	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/05/19 10:16	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/05/19 10:16	1
o-Xylene	ND		0.50	0.12	ug/L			08/05/19 10:16	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/05/19 10:16	1
Styrene	ND		0.50	0.13	ug/L			08/05/19 10:16	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/05/19 10:16	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/05/19 10:16	1
Toluene	ND		0.50	0.10	ug/L			08/05/19 10:16	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/05/19 10:16	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/05/19 10:16	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/05/19 10:16	1
<b>Trichloroethene</b>	<b>2.4</b>		0.50	0.18	ug/L			08/05/19 10:16	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/05/19 10:16	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/05/19 10:16	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	0.61	TJ	ug/L		3.12			08/05/19 10:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	105		80 - 120		08/05/19 10:16	1
4-Bromofluorobenzene (Surr)	91		80 - 120		08/05/19 10:16	1

**Method: RSK-175 - Dissolved Gases (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			08/02/19 14:52	1
Ethane	ND		7.5	1.5	ug/L			08/02/19 14:52	1
Ethene	ND		7.0	1.5	ug/L			08/02/19 14:52	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>38.2</b>		0.50	0.28	mg/L			08/02/19 11:27	1
<b>Sulfate</b>	<b>9.0</b>		2.0	0.35	mg/L			08/02/19 11:27	1
<b>Nitrate as N</b>	<b>0.95</b>	H	0.050	0.020	mg/L			08/02/19 10:44	1
<b>Nitrate Nitrite as N</b>	<b>0.95</b>		0.050	0.020	mg/L			08/02/19 07:14	1
Nitrite as N	ND	H	0.050	0.020	mg/L			08/02/19 10:44	1
<b>Alkalinity, Total</b>	<b>131</b>		5.0	0.79	mg/L			08/06/19 15:37	1
<b>Alkalinity, Bicarbonate</b>	<b>131</b>		5.0	0.79	mg/L			08/06/19 15:37	1
Alkalinity, Carbonate	ND		5.0	0.79	mg/L			08/06/19 15:37	1
Hydroxide Alkalinity	ND		5.0	0.79	mg/L			08/06/19 15:37	1
Sulfide	ND		1.0	0.67	mg/L			08/07/19 15:10	1
Total Organic Carbon	ND		1.0	0.43	mg/L			08/09/19 00:11	1

**General Chemistry - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferrous Iron, Dissolved	ND	HF	0.10	0.075	mg/L			08/13/19 13:25	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-GTA-PZ32-PDB-073119**

**Lab Sample ID: 480-157008-3**

Date Collected: 07/31/19 10:45

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/05/19 10:40	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/05/19 10:40	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/05/19 10:40	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/05/19 10:40	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/05/19 10:40	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/05/19 10:40	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/05/19 10:40	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 10:40	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/05/19 10:40	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 10:40	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/05/19 10:40	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 10:40	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/05/19 10:40	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/05/19 10:40	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/05/19 10:40	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 10:40	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/05/19 10:40	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 10:40	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/05/19 10:40	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/05/19 10:40	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/05/19 10:40	1
2-Hexanone	ND		5.0	1.0	ug/L			08/05/19 10:40	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/05/19 10:40	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/05/19 10:40	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/05/19 10:40	1
<b>Acetone</b>	<b>22</b>		5.0	1.0	ug/L			08/05/19 10:40	1
Acrylonitrile	ND		10	2.2	ug/L			08/05/19 10:40	1
Allyl chloride	ND		0.50	0.22	ug/L			08/05/19 10:40	1
Benzene	ND		0.50	0.13	ug/L			08/05/19 10:40	1
Bromobenzene	ND		0.50	0.13	ug/L			08/05/19 10:40	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/05/19 10:40	1
Bromoform	ND		0.50	0.13	ug/L			08/05/19 10:40	1
Bromomethane	ND		0.50	0.23	ug/L			08/05/19 10:40	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/05/19 10:40	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/05/19 10:40	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/05/19 10:40	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/05/19 10:40	1
Chloroethane	ND		0.50	0.20	ug/L			08/05/19 10:40	1
Chloroform	ND		0.50	0.14	ug/L			08/05/19 10:40	1
Chloromethane	ND		0.50	0.17	ug/L			08/05/19 10:40	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/05/19 10:40	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/05/19 10:40	1
Dibromomethane	ND		0.50	0.17	ug/L			08/05/19 10:40	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/05/19 10:40	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/05/19 10:40	1
Ethyl ether	ND		0.50	0.12	ug/L			08/05/19 10:40	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/05/19 10:40	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/05/19 10:40	1
Iodomethane	ND		0.50	0.15	ug/L			08/05/19 10:40	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-GTA-PZ32-PDB-073119**

**Lab Sample ID: 480-157008-3**

Date Collected: 07/31/19 10:45

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/05/19 10:40	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/05/19 10:40	1
<b>Methylene Chloride</b>	<b>8.8</b>	*	2.5	0.99	ug/L			08/05/19 10:40	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/05/19 10:40	1
Naphthalene	ND		0.50	0.15	ug/L			08/05/19 10:40	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/05/19 10:40	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/05/19 10:40	1
o-Xylene	ND		0.50	0.12	ug/L			08/05/19 10:40	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/05/19 10:40	1
Styrene	ND		0.50	0.13	ug/L			08/05/19 10:40	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/05/19 10:40	1
<b>Tetrachloroethene</b>	<b>0.67</b>		0.50	0.20	ug/L			08/05/19 10:40	1
Toluene	ND		0.50	0.10	ug/L			08/05/19 10:40	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/05/19 10:40	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/05/19 10:40	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/05/19 10:40	1
<b>Trichloroethene</b>	<b>4.9</b>		0.50	0.18	ug/L			08/05/19 10:40	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/05/19 10:40	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/05/19 10:40	1
<b>Tentatively Identified Compound</b>	<b>Est. Result</b>	<b>Qualifier</b>	<b>Unit</b>	<b>D</b>	<b>RT</b>	<b>CAS No.</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Unknown	8.4	TJ	ug/L		3.12			08/05/19 10:40	1
Ethyl Acetate	8.1	TJN	ug/L		4.47	141-78-6		08/05/19 10:40	1
Unknown	3.2	TJ	ug/L		9.76			08/05/19 10:40	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichlorobenzene-d4	112		80 - 120					08/05/19 10:40	1
4-Bromofluorobenzene (Surr)	91		80 - 120					08/05/19 10:40	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-GTA-PZ32-073119**

**Lab Sample ID: 480-157008-4**

Date Collected: 07/31/19 12:45

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/05/19 11:05	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/05/19 11:05	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/05/19 11:05	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/05/19 11:05	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/05/19 11:05	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/05/19 11:05	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/05/19 11:05	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 11:05	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/05/19 11:05	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 11:05	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/05/19 11:05	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 11:05	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/05/19 11:05	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/05/19 11:05	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/05/19 11:05	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 11:05	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/05/19 11:05	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 11:05	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/05/19 11:05	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/05/19 11:05	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/05/19 11:05	1
2-Hexanone	ND		5.0	1.0	ug/L			08/05/19 11:05	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/05/19 11:05	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/05/19 11:05	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/05/19 11:05	1
<b>Acetone</b>	<b>1.2 J</b>		5.0	1.0	ug/L			08/05/19 11:05	1
Acrylonitrile	ND		10	2.2	ug/L			08/05/19 11:05	1
Allyl chloride	ND		0.50	0.22	ug/L			08/05/19 11:05	1
Benzene	ND		0.50	0.13	ug/L			08/05/19 11:05	1
Bromobenzene	ND		0.50	0.13	ug/L			08/05/19 11:05	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/05/19 11:05	1
Bromoform	ND		0.50	0.13	ug/L			08/05/19 11:05	1
Bromomethane	ND		0.50	0.23	ug/L			08/05/19 11:05	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/05/19 11:05	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/05/19 11:05	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/05/19 11:05	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/05/19 11:05	1
Chloroethane	ND		0.50	0.20	ug/L			08/05/19 11:05	1
Chloroform	ND		0.50	0.14	ug/L			08/05/19 11:05	1
Chloromethane	ND		0.50	0.17	ug/L			08/05/19 11:05	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/05/19 11:05	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/05/19 11:05	1
Dibromomethane	ND		0.50	0.17	ug/L			08/05/19 11:05	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/05/19 11:05	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/05/19 11:05	1
Ethyl ether	ND		0.50	0.12	ug/L			08/05/19 11:05	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/05/19 11:05	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/05/19 11:05	1
Iodomethane	ND		0.50	0.15	ug/L			08/05/19 11:05	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-GTA-PZ32-073119**

**Lab Sample ID: 480-157008-4**

Date Collected: 07/31/19 12:45

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/05/19 11:05	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/05/19 11:05	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/05/19 11:05	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/05/19 11:05	1
Naphthalene	ND		0.50	0.15	ug/L			08/05/19 11:05	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/05/19 11:05	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/05/19 11:05	1
o-Xylene	ND		0.50	0.12	ug/L			08/05/19 11:05	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/05/19 11:05	1
Styrene	ND		0.50	0.13	ug/L			08/05/19 11:05	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/05/19 11:05	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/05/19 11:05	1
Toluene	ND		0.50	0.10	ug/L			08/05/19 11:05	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/05/19 11:05	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/05/19 11:05	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/05/19 11:05	1
<b>Trichloroethene</b>	<b>4.3</b>		0.50	0.18	ug/L			08/05/19 11:05	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/05/19 11:05	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/05/19 11:05	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/05/19 11:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	110		80 - 120		08/05/19 11:05	1
4-Bromofluorobenzene (Surr)	90		80 - 120		08/05/19 11:05	1

**Method: RSK-175 - Dissolved Gases (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			08/02/19 15:11	1
Ethane	ND		7.5	1.5	ug/L			08/02/19 15:11	1
Ethene	ND		7.0	1.5	ug/L			08/02/19 15:11	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>12.7</b>		0.50	0.28	mg/L			08/02/19 11:35	1
<b>Sulfate</b>	<b>11.0</b>		2.0	0.35	mg/L			08/02/19 11:35	1
<b>Nitrate as N</b>	<b>0.48</b>		0.050	0.020	mg/L			08/02/19 10:44	1
<b>Nitrate Nitrite as N</b>	<b>0.48</b>		0.050	0.020	mg/L			08/02/19 07:16	1
Nitrite as N	ND		0.050	0.020	mg/L			08/02/19 10:45	1
<b>Alkalinity, Total</b>	<b>110</b>		5.0	0.79	mg/L			08/06/19 15:30	1
<b>Alkalinity, Bicarbonate</b>	<b>110</b>		5.0	0.79	mg/L			08/06/19 15:30	1
Alkalinity, Carbonate	ND		5.0	0.79	mg/L			08/06/19 15:30	1
Hydroxide Alkalinity	ND		5.0	0.79	mg/L			08/06/19 15:30	1
Sulfide	ND		1.0	0.67	mg/L			08/07/19 15:10	1
Total Organic Carbon	ND		1.0	0.43	mg/L			08/09/19 00:25	1

**General Chemistry - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferrous Iron, Dissolved	ND	HF	0.10	0.075	mg/L			08/13/19 13:25	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-SSA-PZ62D-PDB-073119**

**Lab Sample ID: 480-157008-5**

Date Collected: 07/31/19 13:30

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/05/19 11:30	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/05/19 11:30	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/05/19 11:30	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/05/19 11:30	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/05/19 11:30	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/05/19 11:30	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/05/19 11:30	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 11:30	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/05/19 11:30	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 11:30	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/05/19 11:30	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 11:30	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/05/19 11:30	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/05/19 11:30	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/05/19 11:30	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 11:30	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/05/19 11:30	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 11:30	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/05/19 11:30	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/05/19 11:30	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/05/19 11:30	1
2-Hexanone	ND		5.0	1.0	ug/L			08/05/19 11:30	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/05/19 11:30	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/05/19 11:30	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/05/19 11:30	1
<b>Acetone</b>	<b>37</b>		5.0	1.0	ug/L			08/05/19 11:30	1
Acrylonitrile	ND		10	2.2	ug/L			08/05/19 11:30	1
Allyl chloride	ND		0.50	0.22	ug/L			08/05/19 11:30	1
Benzene	ND		0.50	0.13	ug/L			08/05/19 11:30	1
Bromobenzene	ND		0.50	0.13	ug/L			08/05/19 11:30	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/05/19 11:30	1
Bromoform	ND		0.50	0.13	ug/L			08/05/19 11:30	1
Bromomethane	ND		0.50	0.23	ug/L			08/05/19 11:30	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/05/19 11:30	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/05/19 11:30	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/05/19 11:30	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/05/19 11:30	1
Chloroethane	ND		0.50	0.20	ug/L			08/05/19 11:30	1
Chloroform	ND		0.50	0.14	ug/L			08/05/19 11:30	1
Chloromethane	ND		0.50	0.17	ug/L			08/05/19 11:30	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/05/19 11:30	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/05/19 11:30	1
Dibromomethane	ND		0.50	0.17	ug/L			08/05/19 11:30	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/05/19 11:30	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/05/19 11:30	1
Ethyl ether	ND		0.50	0.12	ug/L			08/05/19 11:30	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/05/19 11:30	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/05/19 11:30	1
Iodomethane	ND		0.50	0.15	ug/L			08/05/19 11:30	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-SSA-PZ62D-PDB-073119**

**Lab Sample ID: 480-157008-5**

Date Collected: 07/31/19 13:30

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/05/19 11:30	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/05/19 11:30	1
<b>Methylene Chloride</b>	<b>7.4</b>	*	2.5	0.99	ug/L			08/05/19 11:30	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/05/19 11:30	1
Naphthalene	ND		0.50	0.15	ug/L			08/05/19 11:30	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/05/19 11:30	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/05/19 11:30	1
o-Xylene	ND		0.50	0.12	ug/L			08/05/19 11:30	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/05/19 11:30	1
Styrene	ND		0.50	0.13	ug/L			08/05/19 11:30	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/05/19 11:30	1
<b>Tetrachloroethene</b>	<b>0.51</b>		0.50	0.20	ug/L			08/05/19 11:30	1
Toluene	ND		0.50	0.10	ug/L			08/05/19 11:30	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/05/19 11:30	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/05/19 11:30	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/05/19 11:30	1
<b>Trichloroethene</b>	<b>2.4</b>		0.50	0.18	ug/L			08/05/19 11:30	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/05/19 11:30	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/05/19 11:30	1
<b>Tentatively Identified Compound</b>	<b>Est. Result</b>	<b>Qualifier</b>	<b>Unit</b>	<b>D</b>	<b>RT</b>	<b>CAS No.</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Unknown	8.9	TJ	ug/L		3.12			08/05/19 11:30	1
Ethyl Acetate	4.8	TJN	ug/L		4.47	141-78-6		08/05/19 11:30	1
Unknown	1.7	TJ	ug/L		9.76			08/05/19 11:30	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichlorobenzene-d4	107		80 - 120					08/05/19 11:30	1
4-Bromofluorobenzene (Surr)	88		80 - 120					08/05/19 11:30	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-NLA-PZ55D-PDB--073119**

**Lab Sample ID: 480-157008-6**

Date Collected: 07/31/19 13:50

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/05/19 11:55	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/05/19 11:55	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/05/19 11:55	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/05/19 11:55	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/05/19 11:55	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/05/19 11:55	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/05/19 11:55	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 11:55	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/05/19 11:55	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 11:55	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/05/19 11:55	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 11:55	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/05/19 11:55	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/05/19 11:55	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/05/19 11:55	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 11:55	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/05/19 11:55	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 11:55	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/05/19 11:55	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/05/19 11:55	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/05/19 11:55	1
2-Hexanone	ND		5.0	1.0	ug/L			08/05/19 11:55	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/05/19 11:55	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/05/19 11:55	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/05/19 11:55	1
<b>Acetone</b>	<b>34</b>		5.0	1.0	ug/L			08/05/19 11:55	1
Acrylonitrile	ND		10	2.2	ug/L			08/05/19 11:55	1
Allyl chloride	ND		0.50	0.22	ug/L			08/05/19 11:55	1
Benzene	ND		0.50	0.13	ug/L			08/05/19 11:55	1
Bromobenzene	ND		0.50	0.13	ug/L			08/05/19 11:55	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/05/19 11:55	1
Bromoform	ND		0.50	0.13	ug/L			08/05/19 11:55	1
Bromomethane	ND		0.50	0.23	ug/L			08/05/19 11:55	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/05/19 11:55	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/05/19 11:55	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/05/19 11:55	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/05/19 11:55	1
Chloroethane	ND		0.50	0.20	ug/L			08/05/19 11:55	1
Chloroform	ND		0.50	0.14	ug/L			08/05/19 11:55	1
Chloromethane	ND		0.50	0.17	ug/L			08/05/19 11:55	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/05/19 11:55	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/05/19 11:55	1
Dibromomethane	ND		0.50	0.17	ug/L			08/05/19 11:55	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/05/19 11:55	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/05/19 11:55	1
Ethyl ether	ND		0.50	0.12	ug/L			08/05/19 11:55	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/05/19 11:55	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/05/19 11:55	1
Iodomethane	ND		0.50	0.15	ug/L			08/05/19 11:55	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-NLA-PZ55D-PDB--073119**

**Lab Sample ID: 480-157008-6**

Date Collected: 07/31/19 13:50

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/05/19 11:55	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/05/19 11:55	1
<b>Methylene Chloride</b>	<b>6.0</b>	<b>*</b>	2.5	0.99	ug/L			08/05/19 11:55	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/05/19 11:55	1
Naphthalene	ND		0.50	0.15	ug/L			08/05/19 11:55	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/05/19 11:55	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/05/19 11:55	1
o-Xylene	ND		0.50	0.12	ug/L			08/05/19 11:55	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/05/19 11:55	1
Styrene	ND		0.50	0.13	ug/L			08/05/19 11:55	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/05/19 11:55	1
<b>Tetrachloroethene</b>	<b>0.39</b>	<b>J</b>	0.50	0.20	ug/L			08/05/19 11:55	1
Toluene	ND		0.50	0.10	ug/L			08/05/19 11:55	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/05/19 11:55	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/05/19 11:55	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/05/19 11:55	1
<b>Trichloroethene</b>	<b>2.5</b>		0.50	0.18	ug/L			08/05/19 11:55	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/05/19 11:55	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/05/19 11:55	1
<b>Tentatively Identified Compound</b>	<b>Est. Result</b>	<b>Qualifier</b>	<b>Unit</b>	<b>D</b>	<b>RT</b>	<b>CAS No.</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Unknown	5.4	TJ	ug/L		3.12			08/05/19 11:55	1
Ethyl Acetate	7.2	TJN	ug/L		4.47	141-78-6		08/05/19 11:55	1
Unknown	3.7	TJ	ug/L		9.76			08/05/19 11:55	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichlorobenzene-d4	111		80 - 120					08/05/19 11:55	1
4-Bromofluorobenzene (Surr)	89		80 - 120					08/05/19 11:55	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-NLA-PZ46-PDB-073119**

**Lab Sample ID: 480-157008-7**

Date Collected: 07/31/19 14:00

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/05/19 12:21	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/05/19 12:21	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/05/19 12:21	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/05/19 12:21	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/05/19 12:21	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/05/19 12:21	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/05/19 12:21	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 12:21	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/05/19 12:21	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 12:21	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/05/19 12:21	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 12:21	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/05/19 12:21	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/05/19 12:21	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/05/19 12:21	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 12:21	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/05/19 12:21	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 12:21	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/05/19 12:21	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/05/19 12:21	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/05/19 12:21	1
2-Hexanone	ND		5.0	1.0	ug/L			08/05/19 12:21	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/05/19 12:21	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/05/19 12:21	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/05/19 12:21	1
<b>Acetone</b>	<b>29</b>		5.0	1.0	ug/L			08/05/19 12:21	1
Acrylonitrile	ND		10	2.2	ug/L			08/05/19 12:21	1
Allyl chloride	ND		0.50	0.22	ug/L			08/05/19 12:21	1
Benzene	ND		0.50	0.13	ug/L			08/05/19 12:21	1
Bromobenzene	ND		0.50	0.13	ug/L			08/05/19 12:21	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/05/19 12:21	1
Bromoform	ND		0.50	0.13	ug/L			08/05/19 12:21	1
Bromomethane	ND		0.50	0.23	ug/L			08/05/19 12:21	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/05/19 12:21	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/05/19 12:21	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/05/19 12:21	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/05/19 12:21	1
Chloroethane	ND		0.50	0.20	ug/L			08/05/19 12:21	1
Chloroform	ND		0.50	0.14	ug/L			08/05/19 12:21	1
Chloromethane	ND		0.50	0.17	ug/L			08/05/19 12:21	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/05/19 12:21	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/05/19 12:21	1
Dibromomethane	ND		0.50	0.17	ug/L			08/05/19 12:21	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/05/19 12:21	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/05/19 12:21	1
Ethyl ether	ND		0.50	0.12	ug/L			08/05/19 12:21	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/05/19 12:21	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/05/19 12:21	1
Iodomethane	ND		0.50	0.15	ug/L			08/05/19 12:21	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-NLA-PZ46-PDB-073119**

**Lab Sample ID: 480-157008-7**

Date Collected: 07/31/19 14:00

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/05/19 12:21	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/05/19 12:21	1
<b>Methylene Chloride</b>	<b>6.5</b>	<b>*</b>	2.5	0.99	ug/L			08/05/19 12:21	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/05/19 12:21	1
Naphthalene	ND		0.50	0.15	ug/L			08/05/19 12:21	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/05/19 12:21	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/05/19 12:21	1
o-Xylene	ND		0.50	0.12	ug/L			08/05/19 12:21	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/05/19 12:21	1
Styrene	ND		0.50	0.13	ug/L			08/05/19 12:21	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/05/19 12:21	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/05/19 12:21	1
Toluene	ND		0.50	0.10	ug/L			08/05/19 12:21	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/05/19 12:21	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/05/19 12:21	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/05/19 12:21	1
Trichloroethene	ND		0.50	0.18	ug/L			08/05/19 12:21	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/05/19 12:21	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/05/19 12:21	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	9.0	TJ	ug/L		3.12			08/05/19 12:21	1
Ethyl Acetate	4.9	TJN	ug/L		4.47	141-78-6		08/05/19 12:21	1
Unknown	2.9	TJ	ug/L		9.76			08/05/19 12:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	107		80 - 120		08/05/19 12:21	1
4-Bromofluorobenzene (Surr)	90		80 - 120		08/05/19 12:21	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-WSA-PZ39-PDB--073119**

**Lab Sample ID: 480-157008-8**

Date Collected: 07/31/19 14:25

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/05/19 12:46	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/05/19 12:46	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/05/19 12:46	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/05/19 12:46	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/05/19 12:46	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/05/19 12:46	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/05/19 12:46	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 12:46	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/05/19 12:46	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 12:46	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/05/19 12:46	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 12:46	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/05/19 12:46	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/05/19 12:46	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/05/19 12:46	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 12:46	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/05/19 12:46	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 12:46	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/05/19 12:46	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/05/19 12:46	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/05/19 12:46	1
2-Hexanone	ND		5.0	1.0	ug/L			08/05/19 12:46	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/05/19 12:46	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/05/19 12:46	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/05/19 12:46	1
<b>Acetone</b>	<b>21</b>		5.0	1.0	ug/L			08/05/19 12:46	1
Acrylonitrile	ND		10	2.2	ug/L			08/05/19 12:46	1
Allyl chloride	ND		0.50	0.22	ug/L			08/05/19 12:46	1
Benzene	ND		0.50	0.13	ug/L			08/05/19 12:46	1
Bromobenzene	ND		0.50	0.13	ug/L			08/05/19 12:46	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/05/19 12:46	1
Bromoform	ND		0.50	0.13	ug/L			08/05/19 12:46	1
Bromomethane	ND		0.50	0.23	ug/L			08/05/19 12:46	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/05/19 12:46	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/05/19 12:46	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/05/19 12:46	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/05/19 12:46	1
Chloroethane	ND		0.50	0.20	ug/L			08/05/19 12:46	1
Chloroform	ND		0.50	0.14	ug/L			08/05/19 12:46	1
Chloromethane	ND		0.50	0.17	ug/L			08/05/19 12:46	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/05/19 12:46	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/05/19 12:46	1
Dibromomethane	ND		0.50	0.17	ug/L			08/05/19 12:46	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/05/19 12:46	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/05/19 12:46	1
Ethyl ether	ND		0.50	0.12	ug/L			08/05/19 12:46	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/05/19 12:46	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/05/19 12:46	1
Iodomethane	ND		0.50	0.15	ug/L			08/05/19 12:46	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-WSA-PZ39-PDB--073119**

**Lab Sample ID: 480-157008-8**

Date Collected: 07/31/19 14:25

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/05/19 12:46	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/05/19 12:46	1
<b>Methylene Chloride</b>	<b>8.6</b>	<b>*</b>	2.5	0.99	ug/L			08/05/19 12:46	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/05/19 12:46	1
Naphthalene	ND		0.50	0.15	ug/L			08/05/19 12:46	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/05/19 12:46	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/05/19 12:46	1
o-Xylene	ND		0.50	0.12	ug/L			08/05/19 12:46	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/05/19 12:46	1
Styrene	ND		0.50	0.13	ug/L			08/05/19 12:46	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/05/19 12:46	1
<b>Tetrachloroethene</b>	<b>0.21</b>	<b>J</b>	0.50	0.20	ug/L			08/05/19 12:46	1
Toluene	ND		0.50	0.10	ug/L			08/05/19 12:46	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/05/19 12:46	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/05/19 12:46	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/05/19 12:46	1
Trichloroethene	ND		0.50	0.18	ug/L			08/05/19 12:46	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/05/19 12:46	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/05/19 12:46	1
<b>Tentatively Identified Compound</b>	<b>Est. Result</b>	<b>Qualifier</b>	<b>Unit</b>	<b>D</b>	<b>RT</b>	<b>CAS No.</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Unknown	9.2	TJ	ug/L		3.12			08/05/19 12:46	1
Ethyl Acetate	7.1	TJN	ug/L		4.47	141-78-6		08/05/19 12:46	1
Unknown	2.0	TJ	ug/L		9.76			08/05/19 12:46	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichlorobenzene-d4	110		80 - 120					08/05/19 12:46	1
4-Bromofluorobenzene (Surr)	93		80 - 120					08/05/19 12:46	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-GTA-PZ25-PDB--073119**

**Lab Sample ID: 480-157008-9**

Date Collected: 07/31/19 14:45

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/05/19 13:11	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/05/19 13:11	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/05/19 13:11	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/05/19 13:11	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/05/19 13:11	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/05/19 13:11	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/05/19 13:11	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 13:11	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/05/19 13:11	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 13:11	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/05/19 13:11	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 13:11	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/05/19 13:11	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/05/19 13:11	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/05/19 13:11	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 13:11	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/05/19 13:11	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 13:11	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/05/19 13:11	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/05/19 13:11	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/05/19 13:11	1
2-Hexanone	ND		5.0	1.0	ug/L			08/05/19 13:11	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/05/19 13:11	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/05/19 13:11	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/05/19 13:11	1
<b>Acetone</b>	<b>24</b>		5.0	1.0	ug/L			08/05/19 13:11	1
Acrylonitrile	ND		10	2.2	ug/L			08/05/19 13:11	1
Allyl chloride	ND		0.50	0.22	ug/L			08/05/19 13:11	1
Benzene	ND		0.50	0.13	ug/L			08/05/19 13:11	1
Bromobenzene	ND		0.50	0.13	ug/L			08/05/19 13:11	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/05/19 13:11	1
Bromoform	ND		0.50	0.13	ug/L			08/05/19 13:11	1
Bromomethane	ND		0.50	0.23	ug/L			08/05/19 13:11	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/05/19 13:11	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/05/19 13:11	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/05/19 13:11	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/05/19 13:11	1
Chloroethane	ND		0.50	0.20	ug/L			08/05/19 13:11	1
Chloroform	ND		0.50	0.14	ug/L			08/05/19 13:11	1
Chloromethane	ND		0.50	0.17	ug/L			08/05/19 13:11	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/05/19 13:11	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/05/19 13:11	1
Dibromomethane	ND		0.50	0.17	ug/L			08/05/19 13:11	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/05/19 13:11	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/05/19 13:11	1
Ethyl ether	ND		0.50	0.12	ug/L			08/05/19 13:11	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/05/19 13:11	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/05/19 13:11	1
Iodomethane	ND		0.50	0.15	ug/L			08/05/19 13:11	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-GTA-PZ25-PDB--073119**

**Lab Sample ID: 480-157008-9**

Date Collected: 07/31/19 14:45

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/05/19 13:11	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/05/19 13:11	1
<b>Methylene Chloride</b>	<b>4.3</b>	*	2.5	0.99	ug/L			08/05/19 13:11	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/05/19 13:11	1
Naphthalene	ND		0.50	0.15	ug/L			08/05/19 13:11	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/05/19 13:11	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/05/19 13:11	1
o-Xylene	ND		0.50	0.12	ug/L			08/05/19 13:11	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/05/19 13:11	1
Styrene	ND		0.50	0.13	ug/L			08/05/19 13:11	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/05/19 13:11	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/05/19 13:11	1
Toluene	ND		0.50	0.10	ug/L			08/05/19 13:11	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/05/19 13:11	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/05/19 13:11	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/05/19 13:11	1
<b>Trichloroethene</b>	<b>0.68</b>		0.50	0.18	ug/L			08/05/19 13:11	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/05/19 13:11	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/05/19 13:11	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	7.1	TJ	ug/L		3.12			08/05/19 13:11	1
Unknown	7.2	TJ	ug/L		4.47			08/05/19 13:11	1
Unknown	3.6	TJ	ug/L		9.76			08/05/19 13:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	109		80 - 120		08/05/19 13:11	1
4-Bromofluorobenzene (Surr)	91		80 - 120		08/05/19 13:11	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-GTA-PZ5-PDB-073119**

**Lab Sample ID: 480-157008-10**

Date Collected: 07/31/19 15:10

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/05/19 13:37	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/05/19 13:37	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/05/19 13:37	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/05/19 13:37	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/05/19 13:37	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/05/19 13:37	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/05/19 13:37	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 13:37	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/05/19 13:37	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 13:37	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/05/19 13:37	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 13:37	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/05/19 13:37	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/05/19 13:37	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/05/19 13:37	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 13:37	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/05/19 13:37	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 13:37	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/05/19 13:37	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/05/19 13:37	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/05/19 13:37	1
2-Hexanone	ND		5.0	1.0	ug/L			08/05/19 13:37	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/05/19 13:37	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/05/19 13:37	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/05/19 13:37	1
<b>Acetone</b>	<b>40</b>		5.0	1.0	ug/L			08/05/19 13:37	1
Acrylonitrile	ND		10	2.2	ug/L			08/05/19 13:37	1
Allyl chloride	ND		0.50	0.22	ug/L			08/05/19 13:37	1
Benzene	ND		0.50	0.13	ug/L			08/05/19 13:37	1
Bromobenzene	ND		0.50	0.13	ug/L			08/05/19 13:37	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/05/19 13:37	1
Bromoform	ND		0.50	0.13	ug/L			08/05/19 13:37	1
Bromomethane	ND		0.50	0.23	ug/L			08/05/19 13:37	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/05/19 13:37	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/05/19 13:37	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/05/19 13:37	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/05/19 13:37	1
Chloroethane	ND		0.50	0.20	ug/L			08/05/19 13:37	1
Chloroform	ND		0.50	0.14	ug/L			08/05/19 13:37	1
Chloromethane	ND		0.50	0.17	ug/L			08/05/19 13:37	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/05/19 13:37	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/05/19 13:37	1
Dibromomethane	ND		0.50	0.17	ug/L			08/05/19 13:37	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/05/19 13:37	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/05/19 13:37	1
Ethyl ether	ND		0.50	0.12	ug/L			08/05/19 13:37	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/05/19 13:37	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/05/19 13:37	1
Iodomethane	ND		0.50	0.15	ug/L			08/05/19 13:37	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-GTA-PZ5-PDB-073119**

**Lab Sample ID: 480-157008-10**

Date Collected: 07/31/19 15:10

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/05/19 13:37	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/05/19 13:37	1
<b>Methylene Chloride</b>	<b>6.4</b>	<b>*</b>	2.5	0.99	ug/L			08/05/19 13:37	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/05/19 13:37	1
Naphthalene	ND		0.50	0.15	ug/L			08/05/19 13:37	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/05/19 13:37	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/05/19 13:37	1
o-Xylene	ND		0.50	0.12	ug/L			08/05/19 13:37	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/05/19 13:37	1
Styrene	ND		0.50	0.13	ug/L			08/05/19 13:37	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/05/19 13:37	1
<b>Tetrachloroethene</b>	<b>0.32</b>	<b>J</b>	0.50	0.20	ug/L			08/05/19 13:37	1
Toluene	ND		0.50	0.10	ug/L			08/05/19 13:37	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/05/19 13:37	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/05/19 13:37	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/05/19 13:37	1
<b>Trichloroethene</b>	<b>3.0</b>		0.50	0.18	ug/L			08/05/19 13:37	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/05/19 13:37	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/05/19 13:37	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	2.1	TJ	ug/L		3.12			08/05/19 13:37	1
Unknown	6.1	TJ	ug/L		4.47			08/05/19 13:37	1
Unknown	0.51	TJ	ug/L		7.17			08/05/19 13:37	1
Unknown	2.2	TJ	ug/L		9.76			08/05/19 13:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	108		80 - 120		08/05/19 13:37	1
4-Bromofluorobenzene (Surr)	92		80 - 120		08/05/19 13:37	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-GTA-PZ6D-PDB-073119**

**Lab Sample ID: 480-157008-11**

Date Collected: 07/31/19 15:25

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/05/19 14:02	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/05/19 14:02	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/05/19 14:02	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/05/19 14:02	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/05/19 14:02	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/05/19 14:02	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/05/19 14:02	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 14:02	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/05/19 14:02	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 14:02	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/05/19 14:02	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 14:02	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/05/19 14:02	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/05/19 14:02	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/05/19 14:02	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 14:02	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/05/19 14:02	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 14:02	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/05/19 14:02	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/05/19 14:02	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/05/19 14:02	1
2-Hexanone	ND		5.0	1.0	ug/L			08/05/19 14:02	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/05/19 14:02	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/05/19 14:02	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/05/19 14:02	1
<b>Acetone</b>	<b>34</b>		5.0	1.0	ug/L			08/05/19 14:02	1
Acrylonitrile	ND		10	2.2	ug/L			08/05/19 14:02	1
Allyl chloride	ND		0.50	0.22	ug/L			08/05/19 14:02	1
Benzene	ND		0.50	0.13	ug/L			08/05/19 14:02	1
Bromobenzene	ND		0.50	0.13	ug/L			08/05/19 14:02	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/05/19 14:02	1
Bromoform	ND		0.50	0.13	ug/L			08/05/19 14:02	1
Bromomethane	ND		0.50	0.23	ug/L			08/05/19 14:02	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/05/19 14:02	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/05/19 14:02	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/05/19 14:02	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/05/19 14:02	1
Chloroethane	ND		0.50	0.20	ug/L			08/05/19 14:02	1
Chloroform	ND		0.50	0.14	ug/L			08/05/19 14:02	1
Chloromethane	ND		0.50	0.17	ug/L			08/05/19 14:02	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/05/19 14:02	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/05/19 14:02	1
Dibromomethane	ND		0.50	0.17	ug/L			08/05/19 14:02	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/05/19 14:02	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/05/19 14:02	1
Ethyl ether	ND		0.50	0.12	ug/L			08/05/19 14:02	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/05/19 14:02	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/05/19 14:02	1
Iodomethane	ND		0.50	0.15	ug/L			08/05/19 14:02	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-GTA-PZ6D-PDB-073119**

**Lab Sample ID: 480-157008-11**

Date Collected: 07/31/19 15:25

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/05/19 14:02	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/05/19 14:02	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/05/19 14:02	1
Naphthalene	ND		0.50	0.15	ug/L			08/05/19 14:02	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/05/19 14:02	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/05/19 14:02	1
o-Xylene	ND		0.50	0.12	ug/L			08/05/19 14:02	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/05/19 14:02	1
Styrene	ND		0.50	0.13	ug/L			08/05/19 14:02	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/05/19 14:02	1
<b>Tetrachloroethene</b>	<b>4.4</b>		0.50	0.20	ug/L			08/05/19 14:02	1
Toluene	ND		0.50	0.10	ug/L			08/05/19 14:02	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/05/19 14:02	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/05/19 14:02	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/05/19 14:02	1
<b>Trichloroethene</b>	<b>0.34 J</b>		0.50	0.18	ug/L			08/05/19 14:02	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/05/19 14:02	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/05/19 14:02	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Isopropyl Alcohol	8.5	T J N	ug/L		3.12	67-63-0		08/05/19 14:02	1
Ethyl Acetate	5.0	T J N	ug/L		4.47	141-78-6		08/05/19 14:02	1
Unknown	1.8	T J	ug/L		9.76			08/05/19 14:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	111		80 - 120		08/05/19 14:02	1
4-Bromofluorobenzene (Surr)	90		80 - 120		08/05/19 14:02	1

**Method: 524.2 - Volatile Organic Compounds (GC/MS) - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methylene Chloride</b>	<b>76</b>	<b>*</b>	5.0	2.0	ug/L			08/06/19 08:55	2

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	9.0	T J	ug/L		3.13			08/06/19 08:55	2
Ethyl Acetate	5.6	T J N	ug/L		4.48	141-78-6		08/06/19 08:55	2
Unknown	1.8	T J	ug/L		9.76			08/06/19 08:55	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	108		80 - 120		08/06/19 08:55	2
4-Bromofluorobenzene (Surr)	89		80 - 120		08/06/19 08:55	2

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-GTA-PZ38-PDB-073119**

**Lab Sample ID: 480-157008-12**

Date Collected: 07/31/19 15:55

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/06/19 09:21	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/06/19 09:21	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/06/19 09:21	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/06/19 09:21	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/06/19 09:21	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/06/19 09:21	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/06/19 09:21	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 09:21	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/06/19 09:21	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 09:21	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/06/19 09:21	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 09:21	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/06/19 09:21	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/06/19 09:21	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/06/19 09:21	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 09:21	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/06/19 09:21	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 09:21	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/06/19 09:21	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/06/19 09:21	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/06/19 09:21	1
2-Hexanone	ND		5.0	1.0	ug/L			08/06/19 09:21	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/06/19 09:21	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/06/19 09:21	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/06/19 09:21	1
<b>Acetone</b>	<b>37</b>		5.0	1.0	ug/L			08/06/19 09:21	1
Acrylonitrile	ND		10	2.2	ug/L			08/06/19 09:21	1
Allyl chloride	ND		0.50	0.22	ug/L			08/06/19 09:21	1
Benzene	ND		0.50	0.13	ug/L			08/06/19 09:21	1
Bromobenzene	ND		0.50	0.13	ug/L			08/06/19 09:21	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/06/19 09:21	1
Bromoform	ND		0.50	0.13	ug/L			08/06/19 09:21	1
Bromomethane	ND		0.50	0.23	ug/L			08/06/19 09:21	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/06/19 09:21	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/06/19 09:21	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/06/19 09:21	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/06/19 09:21	1
Chloroethane	ND		0.50	0.20	ug/L			08/06/19 09:21	1
Chloroform	ND		0.50	0.14	ug/L			08/06/19 09:21	1
Chloromethane	ND		0.50	0.17	ug/L			08/06/19 09:21	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/06/19 09:21	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/06/19 09:21	1
Dibromomethane	ND		0.50	0.17	ug/L			08/06/19 09:21	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/06/19 09:21	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/06/19 09:21	1
Ethyl ether	ND		0.50	0.12	ug/L			08/06/19 09:21	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/06/19 09:21	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/06/19 09:21	1
Iodomethane	ND		0.50	0.15	ug/L			08/06/19 09:21	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-GTA-PZ38-PDB-073119**

**Lab Sample ID: 480-157008-12**

Date Collected: 07/31/19 15:55

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/06/19 09:21	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/06/19 09:21	1
<b>Methylene Chloride</b>	<b>6.1</b>	<b>*</b>	2.5	0.99	ug/L			08/06/19 09:21	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/06/19 09:21	1
Naphthalene	ND		0.50	0.15	ug/L			08/06/19 09:21	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/06/19 09:21	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/06/19 09:21	1
o-Xylene	ND		0.50	0.12	ug/L			08/06/19 09:21	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/06/19 09:21	1
Styrene	ND		0.50	0.13	ug/L			08/06/19 09:21	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/06/19 09:21	1
<b>Tetrachloroethene</b>	<b>0.29</b>	<b>J</b>	0.50	0.20	ug/L			08/06/19 09:21	1
Toluene	ND		0.50	0.10	ug/L			08/06/19 09:21	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/06/19 09:21	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/06/19 09:21	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/06/19 09:21	1
<b>Trichloroethene</b>	<b>0.47</b>	<b>J</b>	0.50	0.18	ug/L			08/06/19 09:21	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/06/19 09:21	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/06/19 09:21	1
<b>Tentatively Identified Compound</b>	<b>Est. Result</b>	<b>Qualifier</b>	<b>Unit</b>	<b>D</b>	<b>RT</b>	<b>CAS No.</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Unknown	6.1	TJ	ug/L		3.13			08/06/19 09:21	1
Ethyl Acetate	3.4	TJN	ug/L		4.48	141-78-6		08/06/19 09:21	1
Unknown	1.7	TJ	ug/L		9.76			08/06/19 09:21	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichlorobenzene-d4	111		80 - 120					08/06/19 09:21	1
4-Bromofluorobenzene (Surr)	90		80 - 120					08/06/19 09:21	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: TRIP BLANK-073119**

**Lab Sample ID: 480-157008-13**

Date Collected: 07/31/19 00:00

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/05/19 14:53	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/05/19 14:53	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/05/19 14:53	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/05/19 14:53	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/05/19 14:53	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/05/19 14:53	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/05/19 14:53	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 14:53	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/05/19 14:53	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 14:53	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/05/19 14:53	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 14:53	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/05/19 14:53	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/05/19 14:53	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/05/19 14:53	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 14:53	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/05/19 14:53	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 14:53	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/05/19 14:53	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/05/19 14:53	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/05/19 14:53	1
2-Hexanone	ND		5.0	1.0	ug/L			08/05/19 14:53	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/05/19 14:53	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/05/19 14:53	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/05/19 14:53	1
Acetone	ND		5.0	1.0	ug/L			08/05/19 14:53	1
Acrylonitrile	ND		10	2.2	ug/L			08/05/19 14:53	1
Allyl chloride	ND		0.50	0.22	ug/L			08/05/19 14:53	1
Benzene	ND		0.50	0.13	ug/L			08/05/19 14:53	1
Bromobenzene	ND		0.50	0.13	ug/L			08/05/19 14:53	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/05/19 14:53	1
Bromoform	ND		0.50	0.13	ug/L			08/05/19 14:53	1
Bromomethane	ND		0.50	0.23	ug/L			08/05/19 14:53	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/05/19 14:53	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/05/19 14:53	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/05/19 14:53	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/05/19 14:53	1
Chloroethane	ND		0.50	0.20	ug/L			08/05/19 14:53	1
Chloroform	ND		0.50	0.14	ug/L			08/05/19 14:53	1
Chloromethane	ND		0.50	0.17	ug/L			08/05/19 14:53	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/05/19 14:53	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/05/19 14:53	1
Dibromomethane	ND		0.50	0.17	ug/L			08/05/19 14:53	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/05/19 14:53	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/05/19 14:53	1
Ethyl ether	ND		0.50	0.12	ug/L			08/05/19 14:53	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/05/19 14:53	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/05/19 14:53	1
Iodomethane	ND		0.50	0.15	ug/L			08/05/19 14:53	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: TRIP BLANK-073119**

**Lab Sample ID: 480-157008-13**

Date Collected: 07/31/19 00:00

Matrix: Water

Date Received: 07/31/19 18:00

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/05/19 14:53	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/05/19 14:53	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/05/19 14:53	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/05/19 14:53	1
Naphthalene	ND		0.50	0.15	ug/L			08/05/19 14:53	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/05/19 14:53	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/05/19 14:53	1
o-Xylene	ND		0.50	0.12	ug/L			08/05/19 14:53	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/05/19 14:53	1
Styrene	ND		0.50	0.13	ug/L			08/05/19 14:53	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/05/19 14:53	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/05/19 14:53	1
Toluene	ND		0.50	0.10	ug/L			08/05/19 14:53	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/05/19 14:53	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/05/19 14:53	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/05/19 14:53	1
Trichloroethene	ND		0.50	0.18	ug/L			08/05/19 14:53	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/05/19 14:53	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/05/19 14:53	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/05/19 14:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	106		80 - 120		08/05/19 14:53	1
4-Bromofluorobenzene (Surr)	90		80 - 120		08/05/19 14:53	1

# Surrogate Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCZ (80-120)	BFB (80-120)
480-157008-1	LVRA-WSA-PZ45D-PDB-073119	110	90
480-157008-2	LVRA-WSA-PZ45D-073119	105	91
480-157008-3	LVRA-GTA-PZ32-PDB-073119	112	91
480-157008-4	LVRA-GTA-PZ32-073119	110	90
480-157008-5	LVRA-SSA-PZ62D-PDB-073119	107	88
480-157008-6	LVRA-NLA-PZ55D-PDB-073119	111	89
480-157008-7	LVRA-NLA-PZ46-PDB-073119	107	90
480-157008-8	LVRA-WSA-PZ39-PDB-073119	110	93
480-157008-9	LVRA-GTA-PZ25-PDB--073119	109	91
480-157008-10	LVRA-GTA-PZ5-PDB-073119	108	92
480-157008-11	LVRA-GTA-PZ6D-PDB-073119	111	90
480-157008-11 - DL	LVRA-GTA-PZ6D-PDB-073119	108	89
480-157008-12	LVRA-GTA-PZ38-PDB-073119	111	90
480-157008-13	TRIP BLANK-073119	106	90
LCS 480-485271/4	Lab Control Sample	100	100
LCS 480-485481/5	Lab Control Sample	101	100
LCSD 480-485271/5	Lab Control Sample Dup	99	101
LLCS 480-485271/6	Lab Control Sample	101	98
LLCS 480-485481/6	Lab Control Sample	102	92
MB 480-485271/7	Method Blank	103	92
MB 480-485481/7	Method Blank	108	91

### Surrogate Legend

DCZ = 1,2-Dichlorobenzene-d4

BFB = 4-Bromofluorobenzene (Surr)

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-485271/7

Matrix: Water

Analysis Batch: 485271

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/05/19 08:30	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/05/19 08:30	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/05/19 08:30	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/05/19 08:30	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/05/19 08:30	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/05/19 08:30	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/05/19 08:30	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 08:30	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/05/19 08:30	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 08:30	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/05/19 08:30	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 08:30	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/05/19 08:30	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/05/19 08:30	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/05/19 08:30	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 08:30	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/05/19 08:30	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 08:30	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/05/19 08:30	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/05/19 08:30	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/05/19 08:30	1
2-Hexanone	ND		5.0	1.0	ug/L			08/05/19 08:30	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/05/19 08:30	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/05/19 08:30	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/05/19 08:30	1
Acetone	ND		5.0	1.0	ug/L			08/05/19 08:30	1
Acrylonitrile	ND		10	2.2	ug/L			08/05/19 08:30	1
Allyl chloride	ND		0.50	0.22	ug/L			08/05/19 08:30	1
Benzene	ND		0.50	0.13	ug/L			08/05/19 08:30	1
Bromobenzene	ND		0.50	0.13	ug/L			08/05/19 08:30	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/05/19 08:30	1
Bromoform	ND		0.50	0.13	ug/L			08/05/19 08:30	1
Bromomethane	ND		0.50	0.23	ug/L			08/05/19 08:30	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/05/19 08:30	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/05/19 08:30	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/05/19 08:30	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/05/19 08:30	1
Chloroethane	ND		0.50	0.20	ug/L			08/05/19 08:30	1
Chloroform	ND		0.50	0.14	ug/L			08/05/19 08:30	1
Chloromethane	ND		0.50	0.17	ug/L			08/05/19 08:30	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/05/19 08:30	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/05/19 08:30	1
Dibromomethane	ND		0.50	0.17	ug/L			08/05/19 08:30	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/05/19 08:30	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/05/19 08:30	1
Ethyl ether	ND		0.50	0.12	ug/L			08/05/19 08:30	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/05/19 08:30	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/05/19 08:30	1

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-485271/7

Matrix: Water

Analysis Batch: 485271

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Iodomethane	ND		0.50	0.15	ug/L			08/05/19 08:30	1
Isopropylbenzene	ND		0.50	0.16	ug/L			08/05/19 08:30	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/05/19 08:30	1
Methylene Chloride	ND		2.5	0.99	ug/L			08/05/19 08:30	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/05/19 08:30	1
Naphthalene	ND		0.50	0.15	ug/L			08/05/19 08:30	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/05/19 08:30	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/05/19 08:30	1
o-Xylene	ND		0.50	0.12	ug/L			08/05/19 08:30	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/05/19 08:30	1
Styrene	ND		0.50	0.13	ug/L			08/05/19 08:30	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/05/19 08:30	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/05/19 08:30	1
Toluene	ND		0.50	0.10	ug/L			08/05/19 08:30	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/05/19 08:30	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/05/19 08:30	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/05/19 08:30	1
Trichloroethene	ND		0.50	0.18	ug/L			08/05/19 08:30	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/05/19 08:30	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/05/19 08:30	1

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Tentatively Identified Compound	None		ug/L					08/05/19 08:30	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichlorobenzene-d4	103		80 - 120		08/05/19 08:30	1
4-Bromofluorobenzene (Surr)	92		80 - 120		08/05/19 08:30	1

Lab Sample ID: LCS 480-485271/4

Matrix: Water

Analysis Batch: 485271

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	4.00	4.21		ug/L		105	70 - 130
1,1,2,2-Tetrachloroethane	4.00	3.96		ug/L		99	70 - 130
1,1,2-Trichloroethane	4.00	4.07		ug/L		102	70 - 130
1,1-Dichloroethane	4.00	3.90		ug/L		98	70 - 130
1,1-Dichloroethane	4.00	4.03		ug/L		101	70 - 130
1,1-Dichloropropene	4.00	3.79		ug/L		95	70 - 130
1,2,3-Trichlorobenzene	4.00	3.77		ug/L		94	70 - 130
1,2,3-Trichloropropane	4.00	3.91		ug/L		98	70 - 130
1,2,4-Trichlorobenzene	4.00	3.68		ug/L		92	70 - 130
1,2,4-Trimethylbenzene	4.00	3.76		ug/L		94	70 - 130
1,2-Dichlorobenzene	4.00	3.71		ug/L		93	70 - 130
1,2-Dichloroethane	4.00	3.93		ug/L		98	70 - 130
1,2-Dichloropropane	4.00	3.91		ug/L		98	70 - 130
1,3,5-Trimethylbenzene	4.00	3.74		ug/L		93	70 - 130

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-485271/4

Matrix: Water

Analysis Batch: 485271

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	4.00	3.85		ug/L		96	70 - 130
1,3-Dichloropropane	4.00	3.86		ug/L		97	70 - 130
1,4-Dichlorobenzene	4.00	3.84		ug/L		96	70 - 130
2,2-Dichloropropane	4.00	3.96		ug/L		99	70 - 130
2-Butanone (MEK)	20.0	21.9		ug/L		109	70 - 130
2-Chlorotoluene	4.00	3.68		ug/L		92	70 - 130
2-Hexanone	20.0	19.7		ug/L		99	70 - 130
4-Chlorotoluene	4.00	3.88		ug/L		97	70 - 130
4-Isopropyltoluene	4.00	3.65		ug/L		91	70 - 130
4-Methyl-2-pentanone (MIBK)	20.0	20.0		ug/L		100	70 - 130
Acetone	20.0	26.0		ug/L		130	70 - 130
Benzene	4.00	3.73		ug/L		93	70 - 130
Bromobenzene	4.00	3.75		ug/L		94	70 - 130
Bromochloromethane	4.00	3.93		ug/L		98	70 - 130
Bromoform	4.00	4.22		ug/L		106	70 - 130
Bromomethane	4.00	3.70		ug/L		92	70 - 130
Carbon disulfide	4.00	4.05		ug/L		101	70 - 130
Carbon tetrachloride	4.00	4.62		ug/L		115	70 - 130
Chlorobenzene	4.00	3.81		ug/L		95	70 - 130
Chlorodibromomethane	4.00	4.07		ug/L		102	70 - 130
Chloroethane	4.00	3.91		ug/L		98	70 - 130
Chloroform	4.00	3.82		ug/L		95	70 - 130
Chloromethane	4.00	4.44		ug/L		111	70 - 130
cis-1,2-Dichloroethene	4.00	4.05		ug/L		101	70 - 130
cis-1,3-Dichloropropene	4.00	3.79		ug/L		95	70 - 130
Dibromomethane	4.00	4.01		ug/L		100	70 - 130
Dichlorobromomethane	4.00	4.11		ug/L		103	70 - 130
Dichlorodifluoromethane	4.00	4.42		ug/L		110	70 - 130
Ethylbenzene	4.00	3.70		ug/L		92	70 - 130
Hexachlorobutadiene	4.00	3.91		ug/L		98	70 - 130
Isopropylbenzene	4.00	3.72		ug/L		93	70 - 130
Methyl tert-butyl ether	4.00	3.93		ug/L		98	70 - 130
Methylene Chloride	4.00	4.12		ug/L		103	70 - 130
Naphthalene	4.00	3.55		ug/L		89	70 - 130
n-Butylbenzene	4.00	3.56		ug/L		89	70 - 130
N-Propylbenzene	4.00	3.66		ug/L		91	70 - 130
sec-Butylbenzene	4.00	3.67		ug/L		92	70 - 130
Styrene	4.00	3.79		ug/L		95	70 - 130
tert-Butylbenzene	4.00	3.60		ug/L		90	70 - 130
Tetrachloroethene	4.00	3.89		ug/L		97	70 - 130
Toluene	4.00	3.77		ug/L		94	70 - 130
trans-1,2-Dichloroethene	4.00	4.00		ug/L		100	70 - 130
trans-1,3-Dichloropropene	4.00	3.66		ug/L		91	70 - 130
Trichloroethene	4.00	3.84		ug/L		96	70 - 130
Trichlorofluoromethane	4.00	4.35		ug/L		109	70 - 130
Vinyl chloride	4.00	4.20		ug/L		105	70 - 130

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-485271/4

Matrix: Water

Analysis Batch: 485271

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichlorobenzene-d4	100		80 - 120
4-Bromofluorobenzene (Surr)	100		80 - 120

Lab Sample ID: LCSD 480-485271/5

Matrix: Water

Analysis Batch: 485271

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	4.00	4.26		ug/L		107	70 - 130	6	20
1,1,1-Trichloroethane	4.00	4.26		ug/L		107	70 - 130	1	20
1,1,2,2-Tetrachloroethane	4.00	3.99		ug/L		100	70 - 130	1	20
1,1,2-Trichloroethane	4.00	4.18		ug/L		105	70 - 130	3	20
1,1-Dichloroethane	4.00	3.96		ug/L		99	70 - 130	1	20
1,1-Dichloroethene	4.00	4.15		ug/L		104	70 - 130	3	20
1,1-Dichloropropene	4.00	3.83		ug/L		96	70 - 130	1	20
1,2,3-Trichlorobenzene	4.00	3.87		ug/L		97	70 - 130	3	20
1,2,3-Trichloropropane	4.00	4.13		ug/L		103	70 - 130	5	20
1,2,4-Trichlorobenzene	4.00	3.68		ug/L		92	70 - 130	0	20
1,2,4-Trimethylbenzene	4.00	3.90		ug/L		98	70 - 130	4	20
1,2-Dichlorobenzene	4.00	3.82		ug/L		95	70 - 130	3	20
1,2-Dichloroethane	4.00	4.01		ug/L		100	70 - 130	2	20
1,2-Dichloropropane	4.00	4.05		ug/L		101	70 - 130	4	20
1,3,5-Trimethylbenzene	4.00	3.90		ug/L		98	70 - 130	4	20
1,3-Dichlorobenzene	4.00	3.94		ug/L		98	70 - 130	2	20
1,3-Dichloropropane	4.00	4.07		ug/L		102	70 - 130	5	20
1,4-Dichlorobenzene	4.00	3.98		ug/L		100	70 - 130	4	20
2,2-Dichloropropane	4.00	4.21		ug/L		105	70 - 130	6	20
2-Butanone (MEK)	20.0	20.5		ug/L		103	70 - 130	6	20
2-Chlorotoluene	4.00	3.87		ug/L		97	70 - 130	5	20
2-Hexanone	20.0	19.8		ug/L		99	70 - 130	0	20
4-Chlorotoluene	4.00	3.93		ug/L		98	70 - 130	1	20
4-Isopropyltoluene	4.00	3.87		ug/L		97	70 - 130	6	20
4-Methyl-2-pentanone (MIBK)	20.0	19.5		ug/L		98	70 - 130	3	20
Acetone	20.0	23.2		ug/L		116	70 - 130	11	20
Benzene	4.00	3.85		ug/L		96	70 - 130	3	20
Bromobenzene	4.00	3.92		ug/L		98	70 - 130	4	20
Bromochloromethane	4.00	3.91		ug/L		98	70 - 130	0	20
Bromoform	4.00	4.31		ug/L		108	70 - 130	2	20
Bromomethane	4.00	3.94		ug/L		98	70 - 130	6	20
Carbon disulfide	4.00	4.32		ug/L		108	70 - 130	6	20
Carbon tetrachloride	4.00	4.75		ug/L		119	70 - 130	3	20
Chlorobenzene	4.00	4.10		ug/L		103	70 - 130	7	20
Chlorodibromomethane	4.00	4.27		ug/L		107	70 - 130	5	20
Chloroethane	4.00	4.09		ug/L		102	70 - 130	5	20
Chloroform	4.00	3.89		ug/L		97	70 - 130	2	20
Chloromethane	4.00	4.25		ug/L		106	70 - 130	4	20
cis-1,2-Dichloroethene	4.00	4.09		ug/L		102	70 - 130	1	20
cis-1,3-Dichloropropene	4.00	3.89		ug/L		97	70 - 130	3	20

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-485271/5

Matrix: Water

Analysis Batch: 485271

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromomethane	4.00	4.07		ug/L		102	70 - 130	2	20
Dichlorobromomethane	4.00	4.20		ug/L		105	70 - 130	2	20
Dichlorodifluoromethane	4.00	4.49		ug/L		112	70 - 130	2	20
Ethylbenzene	4.00	3.97		ug/L		99	70 - 130	7	20
Hexachlorobutadiene	4.00	3.93		ug/L		98	70 - 130	1	20
Isopropylbenzene	4.00	3.99		ug/L		100	70 - 130	7	20
Methyl tert-butyl ether	4.00	3.95		ug/L		99	70 - 130	1	20
Methylene Chloride	4.00	4.25		ug/L		106	70 - 130	3	20
Naphthalene	4.00	3.56		ug/L		89	70 - 130	0	20
n-Butylbenzene	4.00	3.69		ug/L		92	70 - 130	4	20
N-Propylbenzene	4.00	3.86		ug/L		97	70 - 130	5	20
sec-Butylbenzene	4.00	3.80		ug/L		95	70 - 130	4	20
Styrene	4.00	4.03		ug/L		101	70 - 130	6	20
tert-Butylbenzene	4.00	3.75		ug/L		94	70 - 130	4	20
Tetrachloroethene	4.00	4.11		ug/L		103	70 - 130	5	20
Toluene	4.00	3.96		ug/L		99	70 - 130	5	20
trans-1,2-Dichloroethene	4.00	4.05		ug/L		101	70 - 130	1	20
trans-1,3-Dichloropropene	4.00	3.74		ug/L		93	70 - 130	2	20
Trichloroethene	4.00	4.07		ug/L		102	70 - 130	6	20
Trichlorofluoromethane	4.00	4.42		ug/L		111	70 - 130	2	20
Vinyl chloride	4.00	4.16		ug/L		104	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichlorobenzene-d4	99		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120

Lab Sample ID: LLCS 480-485271/6

Matrix: Water

Analysis Batch: 485271

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	0.500	0.546		ug/L		109	50 - 150
1,1,1-Trichloroethane	0.500	0.592		ug/L		118	50 - 150
1,1,2,2-Tetrachloroethane	0.500	0.563		ug/L		113	50 - 150
1,1,2-Trichloroethane	0.500	0.562		ug/L		112	50 - 150
1,1-Dichloroethane	0.500	0.562		ug/L		112	50 - 150
1,1-Dichloroethene	0.500	0.576		ug/L		115	50 - 150
1,1-Dichloropropene	0.500	0.585		ug/L		117	50 - 150
1,2,3-Trichlorobenzene	0.500	0.562		ug/L		112	50 - 150
1,2,3-Trichloropropane	0.500	0.552		ug/L		110	50 - 150
1,2,4-Trichlorobenzene	0.500	0.518		ug/L		104	50 - 150
1,2,4-Trimethylbenzene	0.500	0.500		ug/L		100	50 - 150
1,2-Dichlorobenzene	0.500	0.578		ug/L		116	50 - 150
1,2-Dichloroethane	0.500	0.565		ug/L		113	50 - 150
1,2-Dichloropropane	0.500	0.546		ug/L		109	50 - 150
1,3,5-Trimethylbenzene	0.500	0.474	J	ug/L		95	50 - 150
1,3-Dichlorobenzene	0.500	0.571		ug/L		114	50 - 150
1,3-Dichloropropane	0.500	0.555		ug/L		111	50 - 150

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LLCS 480-485271/6

Matrix: Water

Analysis Batch: 485271

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.500	0.582		ug/L		116	50 - 150
2,2-Dichloropropane	0.500	0.636		ug/L		127	50 - 150
2-Butanone (MEK)	2.50	3.12	J	ug/L		125	50 - 150
2-Chlorotoluene	0.500	0.522		ug/L		104	50 - 150
2-Hexanone	2.50	2.56	J	ug/L		103	50 - 150
4-Chlorotoluene	0.500	0.523		ug/L		105	50 - 150
4-Isopropyltoluene	0.500	0.476	J	ug/L		95	50 - 150
4-Methyl-2-pentanone (MIBK)	2.50	2.52	J	ug/L		101	50 - 150
Acetone	2.50	3.62	J	ug/L		145	50 - 150
Benzene	0.500	0.588		ug/L		118	50 - 150
Bromobenzene	0.500	0.561		ug/L		112	50 - 150
Bromochloromethane	0.500	0.547		ug/L		109	50 - 150
Bromoform	0.500	0.558		ug/L		112	50 - 150
Bromomethane	0.500	0.489	J	ug/L		98	50 - 150
Carbon disulfide	0.500	0.560		ug/L		112	50 - 150
Carbon tetrachloride	0.500	0.645		ug/L		129	50 - 150
Chlorobenzene	0.500	0.557		ug/L		111	50 - 150
Chlorodibromomethane	0.500	0.565		ug/L		113	50 - 150
Chloroethane	0.500	0.511		ug/L		102	50 - 150
Chloroform	0.500	0.597		ug/L		119	50 - 150
Chloromethane	0.500	0.477	J	ug/L		95	50 - 150
cis-1,2-Dichloroethene	0.500	0.562		ug/L		112	50 - 150
cis-1,3-Dichloropropene	0.500	0.476	J	ug/L		95	50 - 150
Dibromomethane	0.500	0.578		ug/L		116	50 - 150
Dichlorobromomethane	0.500	0.565		ug/L		113	50 - 150
Dichlorodifluoromethane	0.500	0.460	J	ug/L		92	50 - 150
Ethylbenzene	0.500	0.527		ug/L		105	50 - 150
Hexachlorobutadiene	0.500	0.580		ug/L		116	50 - 150
Isopropylbenzene	0.500	0.510		ug/L		102	50 - 150
Methyl tert-butyl ether	0.500	0.533		ug/L		107	50 - 150
Methylene Chloride	0.500	ND	*	ug/L		190	50 - 150
Naphthalene	0.500	0.470	J	ug/L		94	50 - 150
n-Butylbenzene	0.500	0.483	J	ug/L		97	50 - 150
N-Propylbenzene	0.500	0.504		ug/L		101	50 - 150
sec-Butylbenzene	0.500	0.493	J	ug/L		99	50 - 150
Styrene	0.500	0.493	J	ug/L		99	50 - 150
tert-Butylbenzene	0.500	0.510		ug/L		102	50 - 150
Tetrachloroethene	0.500	0.606		ug/L		121	50 - 150
Toluene	0.500	0.548		ug/L		110	50 - 150
trans-1,2-Dichloroethene	0.500	0.591		ug/L		118	50 - 150
trans-1,3-Dichloropropene	0.500	0.433	J	ug/L		87	50 - 150
Trichloroethene	0.500	0.550		ug/L		110	50 - 150
Trichlorofluoromethane	0.500	0.449	J	ug/L		90	50 - 150
Vinyl chloride	0.500	0.526		ug/L		105	50 - 150

Surrogate	LLCS LLCS		Limits
	%Recovery	Qualifier	
1,2-Dichlorobenzene-d4	101		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 480-485481/7**  
**Matrix: Water**  
**Analysis Batch: 485481**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/06/19 08:15	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/06/19 08:15	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/06/19 08:15	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/06/19 08:15	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/06/19 08:15	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/06/19 08:15	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/06/19 08:15	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 08:15	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/06/19 08:15	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 08:15	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/06/19 08:15	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 08:15	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/06/19 08:15	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/06/19 08:15	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/06/19 08:15	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 08:15	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/06/19 08:15	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 08:15	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/06/19 08:15	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/06/19 08:15	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/06/19 08:15	1
2-Hexanone	ND		5.0	1.0	ug/L			08/06/19 08:15	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/06/19 08:15	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/06/19 08:15	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/06/19 08:15	1
Acetone	ND		5.0	1.0	ug/L			08/06/19 08:15	1
Acrylonitrile	ND		10	2.2	ug/L			08/06/19 08:15	1
Allyl chloride	ND		0.50	0.22	ug/L			08/06/19 08:15	1
Benzene	ND		0.50	0.13	ug/L			08/06/19 08:15	1
Bromobenzene	ND		0.50	0.13	ug/L			08/06/19 08:15	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/06/19 08:15	1
Bromoform	ND		0.50	0.13	ug/L			08/06/19 08:15	1
Bromomethane	ND		0.50	0.23	ug/L			08/06/19 08:15	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/06/19 08:15	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/06/19 08:15	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/06/19 08:15	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/06/19 08:15	1
Chloroethane	ND		0.50	0.20	ug/L			08/06/19 08:15	1
Chloroform	ND		0.50	0.14	ug/L			08/06/19 08:15	1
Chloromethane	ND		0.50	0.17	ug/L			08/06/19 08:15	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/06/19 08:15	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/06/19 08:15	1
Dibromomethane	ND		0.50	0.17	ug/L			08/06/19 08:15	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/06/19 08:15	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/06/19 08:15	1
Ethyl ether	ND		0.50	0.12	ug/L			08/06/19 08:15	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/06/19 08:15	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/06/19 08:15	1

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-485481/7

Matrix: Water

Analysis Batch: 485481

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Iodomethane	ND		0.50	0.15	ug/L			08/06/19 08:15	1
Isopropylbenzene	ND		0.50	0.16	ug/L			08/06/19 08:15	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/06/19 08:15	1
Methylene Chloride	ND		2.5	0.99	ug/L			08/06/19 08:15	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/06/19 08:15	1
Naphthalene	ND		0.50	0.15	ug/L			08/06/19 08:15	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/06/19 08:15	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/06/19 08:15	1
o-Xylene	ND		0.50	0.12	ug/L			08/06/19 08:15	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/06/19 08:15	1
Styrene	ND		0.50	0.13	ug/L			08/06/19 08:15	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/06/19 08:15	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/06/19 08:15	1
Toluene	ND		0.50	0.10	ug/L			08/06/19 08:15	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/06/19 08:15	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/06/19 08:15	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/06/19 08:15	1
Trichloroethene	ND		0.50	0.18	ug/L			08/06/19 08:15	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/06/19 08:15	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/06/19 08:15	1

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Tentatively Identified Compound	None		ug/L					08/06/19 08:15	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichlorobenzene-d4	108		80 - 120		08/06/19 08:15	1
4-Bromofluorobenzene (Surr)	91		80 - 120		08/06/19 08:15	1

Lab Sample ID: LCS 480-485481/5

Matrix: Water

Analysis Batch: 485481

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	4.00	4.39		ug/L		110	70 - 130
1,1,2,2-Tetrachloroethane	4.00	3.85		ug/L		96	70 - 130
1,1,2-Trichloroethane	4.00	4.01		ug/L		100	70 - 130
1,1-Dichloroethane	4.00	3.92		ug/L		98	70 - 130
1,1-Dichloroethane	4.00	4.17		ug/L		104	70 - 130
1,1-Dichloropropene	4.00	3.88		ug/L		97	70 - 130
1,2,3-Trichlorobenzene	4.00	3.85		ug/L		96	70 - 130
1,2,3-Trichloropropane	4.00	3.91		ug/L		98	70 - 130
1,2,4-Trichlorobenzene	4.00	3.69		ug/L		92	70 - 130
1,2,4-Trimethylbenzene	4.00	3.83		ug/L		96	70 - 130
1,2-Dichlorobenzene	4.00	3.81		ug/L		95	70 - 130
1,2-Dichloroethane	4.00	4.05		ug/L		101	70 - 130
1,2-Dichloropropane	4.00	4.01		ug/L		100	70 - 130
1,3,5-Trimethylbenzene	4.00	3.86		ug/L		96	70 - 130

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-485481/5

Matrix: Water

Analysis Batch: 485481

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	4.00	3.97		ug/L		99	70 - 130
1,3-Dichloropropane	4.00	4.01		ug/L		100	70 - 130
1,4-Dichlorobenzene	4.00	3.99		ug/L		100	70 - 130
2,2-Dichloropropane	4.00	4.26		ug/L		106	70 - 130
2-Butanone (MEK)	20.0	20.2		ug/L		101	70 - 130
2-Chlorotoluene	4.00	3.75		ug/L		94	70 - 130
2-Hexanone	20.0	18.5		ug/L		92	70 - 130
4-Chlorotoluene	4.00	3.94		ug/L		98	70 - 130
4-Isopropyltoluene	4.00	3.80		ug/L		95	70 - 130
4-Methyl-2-pentanone (MIBK)	20.0	18.4		ug/L		92	70 - 130
Acetone	20.0	23.9		ug/L		120	70 - 130
Benzene	4.00	3.86		ug/L		96	70 - 130
Bromobenzene	4.00	3.90		ug/L		98	70 - 130
Bromochloromethane	4.00	3.93		ug/L		98	70 - 130
Bromoform	4.00	4.16		ug/L		104	70 - 130
Bromomethane	4.00	4.01		ug/L		100	70 - 130
Carbon disulfide	4.00	4.14		ug/L		103	70 - 130
Carbon tetrachloride	4.00	4.86		ug/L		122	70 - 130
Chlorobenzene	4.00	3.96		ug/L		99	70 - 130
Chlorodibromomethane	4.00	4.20		ug/L		105	70 - 130
Chloroethane	4.00	4.20		ug/L		105	70 - 130
Chloroform	4.00	3.93		ug/L		98	70 - 130
Chloromethane	4.00	4.41		ug/L		110	70 - 130
cis-1,2-Dichloroethene	4.00	4.10		ug/L		102	70 - 130
cis-1,3-Dichloropropene	4.00	3.75		ug/L		94	70 - 130
Dibromomethane	4.00	4.14		ug/L		103	70 - 130
Dichlorobromomethane	4.00	4.12		ug/L		103	70 - 130
Dichlorodifluoromethane	4.00	4.65		ug/L		116	70 - 130
Ethylbenzene	4.00	3.82		ug/L		96	70 - 130
Hexachlorobutadiene	4.00	4.00		ug/L		100	70 - 130
Isopropylbenzene	4.00	3.80		ug/L		95	70 - 130
Methyl tert-butyl ether	4.00	3.95		ug/L		99	70 - 130
Methylene Chloride	4.00	4.34		ug/L		108	70 - 130
Naphthalene	4.00	3.41		ug/L		85	70 - 130
n-Butylbenzene	4.00	3.68		ug/L		92	70 - 130
N-Propylbenzene	4.00	3.80		ug/L		95	70 - 130
sec-Butylbenzene	4.00	3.75		ug/L		94	70 - 130
Styrene	4.00	3.84		ug/L		96	70 - 130
tert-Butylbenzene	4.00	3.71		ug/L		93	70 - 130
Tetrachloroethene	4.00	4.15		ug/L		104	70 - 130
Toluene	4.00	3.88		ug/L		97	70 - 130
trans-1,2-Dichloroethene	4.00	4.25		ug/L		106	70 - 130
trans-1,3-Dichloropropene	4.00	3.66		ug/L		91	70 - 130
Trichloroethene	4.00	4.01		ug/L		100	70 - 130
Trichlorofluoromethane	4.00	4.59		ug/L		115	70 - 130
Vinyl chloride	4.00	4.36		ug/L		109	70 - 130

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-485481/5

Matrix: Water

Analysis Batch: 485481

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichlorobenzene-d4	101		80 - 120
4-Bromofluorobenzene (Surr)	100		80 - 120

Lab Sample ID: LLCS 480-485481/6

Matrix: Water

Analysis Batch: 485481

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS	LLCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
1,1,1,2-Tetrachloroethane	0.500	0.511		ug/L		102	50 - 150
1,1,1-Trichloroethane	0.500	0.532		ug/L		106	50 - 150
1,1,2,2-Tetrachloroethane	0.500	0.531		ug/L		106	50 - 150
1,1,2-Trichloroethane	0.500	0.528		ug/L		106	50 - 150
1,1-Dichloroethane	0.500	0.526		ug/L		105	50 - 150
1,1-Dichloroethane	0.500	0.546		ug/L		109	50 - 150
1,1-Dichloropropene	0.500	0.534		ug/L		107	50 - 150
1,2,3-Trichlorobenzene	0.500	0.503		ug/L		101	50 - 150
1,2,3-Trichloropropane	0.500	0.496	J	ug/L		99	50 - 150
1,2,4-Trichlorobenzene	0.500	0.512		ug/L		102	50 - 150
1,2,4-Trimethylbenzene	0.500	0.454	J	ug/L		91	50 - 150
1,2-Dichlorobenzene	0.500	0.528		ug/L		106	50 - 150
1,2-Dichloroethane	0.500	0.517		ug/L		103	50 - 150
1,2-Dichloropropane	0.500	0.529		ug/L		106	50 - 150
1,3,5-Trimethylbenzene	0.500	0.452	J	ug/L		90	50 - 150
1,3-Dichlorobenzene	0.500	0.519		ug/L		104	50 - 150
1,3-Dichloropropane	0.500	0.522		ug/L		104	50 - 150
1,4-Dichlorobenzene	0.500	0.541		ug/L		108	50 - 150
2,2-Dichloropropane	0.500	0.594		ug/L		119	50 - 150
2-Butanone (MEK)	2.50	3.12	J	ug/L		125	50 - 150
2-Chlorotoluene	0.500	0.491	J	ug/L		98	50 - 150
2-Hexanone	2.50	2.25	J	ug/L		90	50 - 150
4-Chlorotoluene	0.500	0.492	J	ug/L		98	50 - 150
4-Isopropyltoluene	0.500	0.446	J	ug/L		89	50 - 150
4-Methyl-2-pentanone (MIBK)	2.50	2.20	J	ug/L		88	50 - 150
Acetone	2.50	3.60	J	ug/L		144	50 - 150
Benzene	0.500	0.541		ug/L		108	50 - 150
Bromobenzene	0.500	0.525		ug/L		105	50 - 150
Bromochloromethane	0.500	0.566		ug/L		113	50 - 150
Bromoform	0.500	0.481	J	ug/L		96	50 - 150
Bromomethane	0.500	0.544		ug/L		109	50 - 150
Carbon disulfide	0.500	0.506		ug/L		101	50 - 150
Carbon tetrachloride	0.500	0.611		ug/L		122	50 - 150
Chlorobenzene	0.500	0.544		ug/L		109	50 - 150
Chlorodibromomethane	0.500	0.529		ug/L		106	50 - 150
Chloroethane	0.500	0.543		ug/L		109	50 - 150
Chloroform	0.500	0.561		ug/L		112	50 - 150
Chloromethane	0.500	0.461	J	ug/L		92	50 - 150
cis-1,2-Dichloroethene	0.500	0.558		ug/L		112	50 - 150
cis-1,3-Dichloropropene	0.500	0.471	J	ug/L		94	50 - 150

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LLCS 480-485481/6

Matrix: Water

Analysis Batch: 485481

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	0.500	0.530		ug/L		106	50 - 150
Dichlorobromomethane	0.500	0.539		ug/L		108	50 - 150
Dichlorodifluoromethane	0.500	0.566		ug/L		113	50 - 150
Ethylbenzene	0.500	0.470	J	ug/L		94	50 - 150
Hexachlorobutadiene	0.500	0.519		ug/L		104	50 - 150
Isopropylbenzene	0.500	0.458	J	ug/L		92	50 - 150
Methyl tert-butyl ether	0.500	0.503		ug/L		101	50 - 150
Methylene Chloride	0.500	ND	*	ug/L		172	50 - 150
Naphthalene	0.500	0.400	J	ug/L		80	50 - 150
n-Butylbenzene	0.500	0.427	J	ug/L		85	50 - 150
N-Propylbenzene	0.500	0.460	J	ug/L		92	50 - 150
sec-Butylbenzene	0.500	0.458	J	ug/L		92	50 - 150
Styrene	0.500	0.436	J	ug/L		87	50 - 150
tert-Butylbenzene	0.500	0.452	J	ug/L		90	50 - 150
Tetrachloroethene	0.500	0.530		ug/L		106	50 - 150
Toluene	0.500	0.511		ug/L		102	50 - 150
trans-1,2-Dichloroethene	0.500	0.580		ug/L		116	50 - 150
trans-1,3-Dichloropropene	0.500	0.425	J	ug/L		85	50 - 150
Trichloroethene	0.500	0.534		ug/L		107	50 - 150
Trichlorofluoromethane	0.500	0.486	J	ug/L		97	50 - 150
Vinyl chloride	0.500	0.605		ug/L		121	50 - 150

Surrogate	LLCS %Recovery	LLCS Qualifier	Limits
1,2-Dichlorobenzene-d4	102		80 - 120
4-Bromofluorobenzene (Surr)	92		80 - 120

## Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 480-485135/4

Matrix: Water

Analysis Batch: 485135

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			08/02/19 13:02	1
Ethane	ND		7.5	1.5	ug/L			08/02/19 13:02	1
Ethene	ND		7.0	1.5	ug/L			08/02/19 13:02	1

Lab Sample ID: LCS 480-485135/5

Matrix: Water

Analysis Batch: 485135

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	19.2	17.9		ug/L		93	85 - 120
Ethane	36.2	34.6		ug/L		95	79 - 120
Ethene	33.8	31.0		ug/L		92	85 - 120

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCSD 480-485135/6  
Matrix: Water  
Analysis Batch: 485135

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane	19.2	18.9		ug/L		99	85 - 120	5	50
Ethane	36.2	36.3		ug/L		100	79 - 120	5	50
Ethene	33.8	32.3		ug/L		96	85 - 120	4	50

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-485095/4  
Matrix: Water  
Analysis Batch: 485095

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.28	mg/L			08/02/19 11:02	1
Sulfate	ND		2.0	0.35	mg/L			08/02/19 11:02	1

Lab Sample ID: LCS 480-485095/3  
Matrix: Water  
Analysis Batch: 485095

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.84		mg/L		102	90 - 110
Sulfate	50.0	51.37		mg/L		103	90 - 110

## Method: 353.2 - Nitrogen, Nitrite

Lab Sample ID: MB 480-485114/3  
Matrix: Water  
Analysis Batch: 485114

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.050	0.020	mg/L			08/02/19 10:38	1

Lab Sample ID: LCS 480-485114/4  
Matrix: Water  
Analysis Batch: 485114

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	1.50	1.49		mg/L		99	90 - 110

## Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 480-485085/4  
Matrix: Water  
Analysis Batch: 485085

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.050	0.020	mg/L			08/02/19 07:12	1

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: LCS 480-485085/5  
Matrix: Water  
Analysis Batch: 485085

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	1.50	1.43		mg/L		95	90 - 110

Lab Sample ID: 480-157008-2 MS  
Matrix: Water  
Analysis Batch: 485085

Client Sample ID: LVRA-WSA-PZ45D-073119  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.95		1.00	2.03		mg/L		108	90 - 110

## Method: SM 2320B - Alkalinity

Lab Sample ID: MB 480-485712/52  
Matrix: Water  
Analysis Batch: 485712

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0	0.79	mg/L			08/06/19 14:33	1
Alkalinity, Bicarbonate	ND		5.0	0.79	mg/L			08/06/19 14:33	1
Alkalinity, Carbonate	ND		5.0	0.79	mg/L			08/06/19 14:33	1
Hydroxide Alkalinity	ND		5.0	0.79	mg/L			08/06/19 14:33	1

Lab Sample ID: LCS 480-485712/53  
Matrix: Water  
Analysis Batch: 485712

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	100	95.29		mg/L		95	90 - 110

## Method: SM 3500 FE D - Iron, Ferrous and Ferric

Lab Sample ID: MB 480-486766/3  
Matrix: Water  
Analysis Batch: 486766

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferrous Iron, Dissolved	ND		0.10	0.075	mg/L			08/13/19 13:25	1

Lab Sample ID: LCS 480-486766/4  
Matrix: Water  
Analysis Batch: 486766

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron, Dissolved	2.00	2.02		mg/L		101	90 - 110

Lab Sample ID: 480-157008-4 DU  
Matrix: Water  
Analysis Batch: 486766

Client Sample ID: LVRA-GTA-PZ32-073119  
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron, Dissolved	ND	HF	ND		mg/L		NC	20

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## Method: SM 4500 S2 F - Sulfide, Total

Lab Sample ID: MB 480-485905/3  
Matrix: Water  
Analysis Batch: 485905

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		1.0	0.67	mg/L			08/07/19 15:10	1

Lab Sample ID: LCS 480-485905/4  
Matrix: Water  
Analysis Batch: 485905

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	7.40	7.20		mg/L		97	90 - 110

Lab Sample ID: 480-157008-4 MS  
Matrix: Water  
Analysis Batch: 485905

Client Sample ID: LVRA-GTA-PZ32-073119  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	ND		2.55	2.40		mg/L		94	40 - 150

## Method: SM 5310C - TOC

Lab Sample ID: MB 480-486343/4  
Matrix: Water  
Analysis Batch: 486343

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0	0.43	mg/L			08/08/19 19:30	1

Lab Sample ID: LCS 480-486343/5  
Matrix: Water  
Analysis Batch: 486343

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	60.0	55.37		mg/L		92	90 - 110

# QC Association Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## GC/MS VOA

### Analysis Batch: 485271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157008-1	LVRA-WSA-PZ45D-PDB-073119	Total/NA	Water	524.2	
480-157008-2	LVRA-WSA-PZ45D-073119	Total/NA	Water	524.2	
480-157008-3	LVRA-GTA-PZ32-PDB-073119	Total/NA	Water	524.2	
480-157008-4	LVRA-GTA-PZ32-073119	Total/NA	Water	524.2	
480-157008-5	LVRA-SSA-PZ62D-PDB-073119	Total/NA	Water	524.2	
480-157008-6	LVRA-NLA-PZ55D-PDB--073119	Total/NA	Water	524.2	
480-157008-7	LVRA-NLA-PZ46-PDB-073119	Total/NA	Water	524.2	
480-157008-8	LVRA-WSA-PZ39-PDB--073119	Total/NA	Water	524.2	
480-157008-9	LVRA-GTA-PZ25-PDB--073119	Total/NA	Water	524.2	
480-157008-10	LVRA-GTA-PZ5-PDB-073119	Total/NA	Water	524.2	
480-157008-11	LVRA-GTA-PZ6D-PDB-073119	Total/NA	Water	524.2	
480-157008-13	TRIP BLANK-073119	Total/NA	Water	524.2	
MB 480-485271/7	Method Blank	Total/NA	Water	524.2	
LCS 480-485271/4	Lab Control Sample	Total/NA	Water	524.2	
LCSD 480-485271/5	Lab Control Sample Dup	Total/NA	Water	524.2	
LLCS 480-485271/6	Lab Control Sample	Total/NA	Water	524.2	

### Analysis Batch: 485481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157008-11 - DL	LVRA-GTA-PZ6D-PDB-073119	Total/NA	Water	524.2	
480-157008-12	LVRA-GTA-PZ38-PDB-073119	Total/NA	Water	524.2	
MB 480-485481/7	Method Blank	Total/NA	Water	524.2	
LCS 480-485481/5	Lab Control Sample	Total/NA	Water	524.2	
LLCS 480-485481/6	Lab Control Sample	Total/NA	Water	524.2	

## GC VOA

### Analysis Batch: 485135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157008-2	LVRA-WSA-PZ45D-073119	Total/NA	Water	RSK-175	
480-157008-4	LVRA-GTA-PZ32-073119	Total/NA	Water	RSK-175	
MB 480-485135/4	Method Blank	Total/NA	Water	RSK-175	
LCS 480-485135/5	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 480-485135/6	Lab Control Sample Dup	Total/NA	Water	RSK-175	

## General Chemistry

### Analysis Batch: 485085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157008-2	LVRA-WSA-PZ45D-073119	Total/NA	Water	353.2	
480-157008-4	LVRA-GTA-PZ32-073119	Total/NA	Water	353.2	
MB 480-485085/4	Method Blank	Total/NA	Water	353.2	
LCS 480-485085/5	Lab Control Sample	Total/NA	Water	353.2	
480-157008-2 MS	LVRA-WSA-PZ45D-073119	Total/NA	Water	353.2	

### Analysis Batch: 485095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157008-2	LVRA-WSA-PZ45D-073119	Total/NA	Water	300.0	
480-157008-4	LVRA-GTA-PZ32-073119	Total/NA	Water	300.0	
MB 480-485095/4	Method Blank	Total/NA	Water	300.0	
LCS 480-485095/3	Lab Control Sample	Total/NA	Water	300.0	

Eurofins TestAmerica, Buffalo

# QC Association Summary

Client: New York State D.E.C.  
 Project/Site: Little Valley #905026

Job ID: 480-157008-1

## General Chemistry

### Analysis Batch: 485114

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157008-2	LVRA-WSA-PZ45D-073119	Total/NA	Water	353.2	
480-157008-4	LVRA-GTA-PZ32-073119	Total/NA	Water	353.2	
MB 480-485114/3	Method Blank	Total/NA	Water	353.2	
LCS 480-485114/4	Lab Control Sample	Total/NA	Water	353.2	

### Analysis Batch: 485449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157008-2	LVRA-WSA-PZ45D-073119	Total/NA	Water	353.2	
480-157008-4	LVRA-GTA-PZ32-073119	Total/NA	Water	353.2	

### Analysis Batch: 485712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157008-2	LVRA-WSA-PZ45D-073119	Total/NA	Water	SM 2320B	
480-157008-4	LVRA-GTA-PZ32-073119	Total/NA	Water	SM 2320B	
MB 480-485712/52	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-485712/53	Lab Control Sample	Total/NA	Water	SM 2320B	

### Analysis Batch: 485905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157008-2	LVRA-WSA-PZ45D-073119	Total/NA	Water	SM 4500 S2 F	
480-157008-4	LVRA-GTA-PZ32-073119	Total/NA	Water	SM 4500 S2 F	
MB 480-485905/3	Method Blank	Total/NA	Water	SM 4500 S2 F	
LCS 480-485905/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 F	
480-157008-4 MS	LVRA-GTA-PZ32-073119	Total/NA	Water	SM 4500 S2 F	

### Analysis Batch: 486343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157008-2	LVRA-WSA-PZ45D-073119	Total/NA	Water	SM 5310C	
480-157008-4	LVRA-GTA-PZ32-073119	Total/NA	Water	SM 5310C	
MB 480-486343/4	Method Blank	Total/NA	Water	SM 5310C	
LCS 480-486343/5	Lab Control Sample	Total/NA	Water	SM 5310C	

### Analysis Batch: 486766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157008-2	LVRA-WSA-PZ45D-073119	Dissolved	Water	SM 3500 FE D	
480-157008-4	LVRA-GTA-PZ32-073119	Dissolved	Water	SM 3500 FE D	
MB 480-486766/3	Method Blank	Total/NA	Water	SM 3500 FE D	
LCS 480-486766/4	Lab Control Sample	Total/NA	Water	SM 3500 FE D	
480-157008-4 DU	LVRA-GTA-PZ32-073119	Dissolved	Water	SM 3500 FE D	

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-WSA-PZ45D-PDB-073119**

**Lab Sample ID: 480-157008-1**

Date Collected: 07/31/19 08:40

Matrix: Water

Date Received: 07/31/19 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485271	08/05/19 09:51	CDC	TAL BUF

**Client Sample ID: LVRA-WSA-PZ45D-073119**

**Lab Sample ID: 480-157008-2**

Date Collected: 07/31/19 09:45

Matrix: Water

Date Received: 07/31/19 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485271	08/05/19 10:16	CDC	TAL BUF
Total/NA	Analysis	RSK-175		1	485135	08/02/19 14:52	DSC	TAL BUF
Total/NA	Analysis	300.0		1	485095	08/02/19 11:27	IMZ	TAL BUF
Total/NA	Analysis	353.2		1	485085	08/02/19 07:14	CLT	TAL BUF
Total/NA	Analysis	353.2		1	485449	08/02/19 10:44	KMF	TAL BUF
Total/NA	Analysis	353.2		1	485114	08/02/19 10:44	BEF	TAL BUF
Total/NA	Analysis	SM 2320B		1	485712	08/06/19 15:37	KEB	TAL BUF
Dissolved	Analysis	SM 3500 FE D		1	486766	08/13/19 13:25	MDL	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	485905	08/07/19 15:10	MJB	TAL BUF
Total/NA	Analysis	SM 5310C		1	486343	08/09/19 00:11	CLA	TAL BUF

**Client Sample ID: LVRA-GTA-PZ32-PDB-073119**

**Lab Sample ID: 480-157008-3**

Date Collected: 07/31/19 10:45

Matrix: Water

Date Received: 07/31/19 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485271	08/05/19 10:40	CDC	TAL BUF

**Client Sample ID: LVRA-GTA-PZ32-073119**

**Lab Sample ID: 480-157008-4**

Date Collected: 07/31/19 12:45

Matrix: Water

Date Received: 07/31/19 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485271	08/05/19 11:05	CDC	TAL BUF
Total/NA	Analysis	RSK-175		1	485135	08/02/19 15:11	DSC	TAL BUF
Total/NA	Analysis	300.0		1	485095	08/02/19 11:35	IMZ	TAL BUF
Total/NA	Analysis	353.2		1	485085	08/02/19 07:16	CLT	TAL BUF
Total/NA	Analysis	353.2		1	485449	08/02/19 10:44	KMF	TAL BUF
Total/NA	Analysis	353.2		1	485114	08/02/19 10:45	BEF	TAL BUF
Total/NA	Analysis	SM 2320B		1	485712	08/06/19 15:30	KEB	TAL BUF
Dissolved	Analysis	SM 3500 FE D		1	486766	08/13/19 13:25	MDL	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	485905	08/07/19 15:10	MJB	TAL BUF
Total/NA	Analysis	SM 5310C		1	486343	08/09/19 00:25	CLA	TAL BUF

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-SSA-PZ62D-PDB-073119**

**Lab Sample ID: 480-157008-5**

Date Collected: 07/31/19 13:30

Matrix: Water

Date Received: 07/31/19 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485271	08/05/19 11:30	CDC	TAL BUF

**Client Sample ID: LVRA-NLA-PZ55D-PDB--073119**

**Lab Sample ID: 480-157008-6**

Date Collected: 07/31/19 13:50

Matrix: Water

Date Received: 07/31/19 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485271	08/05/19 11:55	CDC	TAL BUF

**Client Sample ID: LVRA-NLA-PZ46-PDB-073119**

**Lab Sample ID: 480-157008-7**

Date Collected: 07/31/19 14:00

Matrix: Water

Date Received: 07/31/19 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485271	08/05/19 12:21	CDC	TAL BUF

**Client Sample ID: LVRA-WSA-PZ39-PDB--073119**

**Lab Sample ID: 480-157008-8**

Date Collected: 07/31/19 14:25

Matrix: Water

Date Received: 07/31/19 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485271	08/05/19 12:46	CDC	TAL BUF

**Client Sample ID: LVRA-GTA-PZ25-PDB--073119**

**Lab Sample ID: 480-157008-9**

Date Collected: 07/31/19 14:45

Matrix: Water

Date Received: 07/31/19 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485271	08/05/19 13:11	CDC	TAL BUF

**Client Sample ID: LVRA-GTA-PZ5-PDB-073119**

**Lab Sample ID: 480-157008-10**

Date Collected: 07/31/19 15:10

Matrix: Water

Date Received: 07/31/19 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485271	08/05/19 13:37	CDC	TAL BUF

**Client Sample ID: LVRA-GTA-PZ6D-PDB-073119**

**Lab Sample ID: 480-157008-11**

Date Collected: 07/31/19 15:25

Matrix: Water

Date Received: 07/31/19 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485271	08/05/19 14:02	CDC	TAL BUF
Total/NA	Analysis	524.2	DL	2	485481	08/06/19 08:55	CDC	TAL BUF

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

**Client Sample ID: LVRA-GTA-PZ38-PDB-073119**

**Lab Sample ID: 480-157008-12**

**Date Collected: 07/31/19 15:55**

**Matrix: Water**

**Date Received: 07/31/19 18:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485481	08/06/19 09:21	CDC	TAL BUF

**Client Sample ID: TRIP BLANK-073119**

**Lab Sample ID: 480-157008-13**

**Date Collected: 07/31/19 00:00**

**Matrix: Water**

**Date Received: 07/31/19 18:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485271	08/05/19 14:53	CDC	TAL BUF

**Laboratory References:**

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600



# Accreditation/Certification Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

## Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
524.2		Water	2-Butanone (MEK)
524.2		Water	2-Hexanone
524.2		Water	Acrylonitrile
524.2		Water	Allyl chloride
524.2		Water	Carbon disulfide
524.2		Water	Ethyl ether
524.2		Water	m-Xylene & p-Xylene
524.2		Water	o-Xylene
524.2		Water	trans-1,4-Dichloro-2-butene
SM 3500 FE D		Water	Ferrous Iron, Dissolved

# Method Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

Method	Method Description	Protocol	Laboratory
524.2	Volatile Organic Compounds (GC/MS)	EPA-DW	TAL BUF
RSK-175	Dissolved Gases (GC)	RSK	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
353.2	Nitrate	EPA	TAL BUF
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL BUF
353.2	Nitrogen, Nitrite	MCAWW	TAL BUF
SM 2320B	Alkalinity	SM	TAL BUF
SM 3500 FE D	Iron, Ferrous and Ferric	SM	TAL BUF
SM 4500 S2 F	Sulfide, Total	SM	TAL BUF
SM 5310C	TOC	SM	TAL BUF

#### Protocol References:

EPA = US Environmental Protection Agency

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

#### Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# Sample Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157008-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-157008-1	LVRA-WSA-PZ45D-PDB-073119	Water	07/31/19 08:40	07/31/19 18:00	
480-157008-2	LVRA-WSA-PZ45D-073119	Water	07/31/19 09:45	07/31/19 18:00	
480-157008-3	LVRA-GTA-PZ32-PDB-073119	Water	07/31/19 10:45	07/31/19 18:00	
480-157008-4	LVRA-GTA-PZ32-073119	Water	07/31/19 12:45	07/31/19 18:00	
480-157008-5	LVRA-SSA-PZ62D-PDB-073119	Water	07/31/19 13:30	07/31/19 18:00	
480-157008-6	LVRA-NLA-PZ55D-PDB--073119	Water	07/31/19 13:50	07/31/19 18:00	
480-157008-7	LVRA-NLA-PZ46-PDB-073119	Water	07/31/19 14:00	07/31/19 18:00	
480-157008-8	LVRA-WSA-PZ39-PDB--073119	Water	07/31/19 14:25	07/31/19 18:00	
480-157008-9	LVRA-GTA-PZ25-PDB--073119	Water	07/31/19 14:45	07/31/19 18:00	
480-157008-10	LVRA-GTA-PZ5-PDB-073119	Water	07/31/19 15:10	07/31/19 18:00	
480-157008-11	LVRA-GTA-PZ6D-PDB-073119	Water	07/31/19 15:25	07/31/19 18:00	
480-157008-12	LVRA-GTA-PZ38-PDB-073119	Water	07/31/19 15:55	07/31/19 18:00	
480-157008-13	TRIP BLANK-073119	Water	07/31/19 00:00	07/31/19 18:00	



480-157008 Chain of Custody

Client/Project Name: NYSDEC/Agency/Watts Project Number: 6026-6877-1	Project Location: Little Valley, NY NYSDEC Site ID: 9-05-026	Project Manager: Steve Chimiere	TAT: Standard	Analysis Requested		Remarks		
				Container Type	Preservation			
Send Results/Report to: AECOM 408 Irish American Blvd Latham, NY 12110	FedEx/UPS Tracking Number: Hand Deliver	Matrix	# of Containers	Preserv	Samp Containers	Lab I.D.		
Sampler: MEH/MPG	Field Sample No./Identification	Date	Time	C O M P	G R A B	Matrix Codes		
LVR-A-WSA-P245D-PDB-073119	7/31/19 08:40	X	3	GW	1	V	3532 - Nitrogen, Nitrate, Nitrite Nitrates - 3532 Nitrate 3527N 2320B - Alkalinity - new 3500-FE-D-Ferrous Fe (Field Filtered) Extra Bottle (Per Lab)	Passive Diffusion Bag (PDB)
LVR-A-WSA-P245D-PDB-073119	7/31/19 08:45	X	15	GW	1,5,7	V,P	5810C - TOC	Low Flow
LVR-A-WSA-P245D-PDB-073119	7/31/19 10:45	X	3	GW	1	V	300-0-2BD - Cl <sup>-</sup> & SO <sub>4</sub> <sup>2-</sup> R5K-175 - Methane, Ethane, Etane	PDB
LVR-A-GTA-P232-PDB-073119	7/31/19 12:45	X	15	GW	1,5,7	V,P	5810C - TOC	Low Flow
LVR-A-SSA-P262D-PDB-073119	7/31/19 13:30	X	3	GW	1	V	300-0-2BD - Cl <sup>-</sup> & SO <sub>4</sub> <sup>2-</sup> R5K-175 - Methane, Ethane, Etane	PDB
LVR-A-NLA-P255D-PDB-073119	7/31/19 13:50	X	3	GW	1	V	300-0-2BD - Cl <sup>-</sup> & SO <sub>4</sub> <sup>2-</sup> R5K-175 - Methane, Ethane, Etane	PDB
LVR-A-NLA-P246-PDB-073119	7/31/19 14:00	X	3	GW	1	V	300-0-2BD - Cl <sup>-</sup> & SO <sub>4</sub> <sup>2-</sup> R5K-175 - Methane, Ethane, Etane	PDB
LVR-A-WSA-P239-PDB-073119	7/31/19 14:25	X	3	GW	1	V	300-0-2BD - Cl <sup>-</sup> & SO <sub>4</sub> <sup>2-</sup> R5K-175 - Methane, Ethane, Etane	PDB
LVR-A-GTA-P225-PDB-073119	7/31/19 14:45	X	3	GW	1	V	300-0-2BD - Cl <sup>-</sup> & SO <sub>4</sub> <sup>2-</sup> R5K-175 - Methane, Ethane, Etane	PDB
LVR-A-GTA-P25-PDB-073119	7/31/19 15:10	X	3	GW	1	V	300-0-2BD - Cl <sup>-</sup> & SO <sub>4</sub> <sup>2-</sup> R5K-175 - Methane, Ethane, Etane	PDB
LVR-A-GTA-P26D-PDB-073119	7/31/19 15:25	X	3	GW	1	V	300-0-2BD - Cl <sup>-</sup> & SO <sub>4</sub> <sup>2-</sup> R5K-175 - Methane, Ethane, Etane	PDB
LVR-A-GTA-P238-PDB-073119	7/31/19 15:55	X	3	GW	1	V	300-0-2BD - Cl <sup>-</sup> & SO <sub>4</sub> <sup>2-</sup> R5K-175 - Methane, Ethane, Etane	PDB
TRIP BLANK-073119	7/31/19	X	2	GW	1	V	300-0-2BD - Cl <sup>-</sup> & SO <sub>4</sub> <sup>2-</sup> R5K-175 - Methane, Ethane, Etane	PDB
Relinquished by: Michael Herber	Date: 7/31/19 Time: 1800	Received by: Steve Chimiere	Date: 7/31/19 Time: 1800	Additional Remarks: MNA Sampling with low-flow & Passive Diffusion Bags Temp 3.9 #1 ICE			Temp blank	
Relinquished by:	Date:	Received by:	Date:	UPS	FedEx	Courier	Other	
Relinquished by:	Date:	Received by:	Date:	Yes	No	Yes	No	

Serial No. 592



## Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-157008-1

**Login Number: 157008**

**List Source: Eurofins TestAmerica, Buffalo**

**List Number: 1**

**Creator: Kolb, Chris M**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	aecom/watts
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

## ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo  
10 Hazelwood Drive  
Amherst, NY 14228-2298  
Tel: (716)691-2600

Laboratory Job ID: 480-157112-1  
Client Project/Site: Little Valley #905026

For:  
New York State D.E.C.  
625 Broadway 9th Floor  
Albany, New York 12233-7258

Attn: George Momberger



Authorized for release by:  
8/14/2019 1:44:57 PM

Joe Giacomazza, Project Management Assistant II  
[joe.giacomazza@testamericainc.com](mailto:joe.giacomazza@testamericainc.com)

Designee for

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### LINKS

Review your project  
results through  
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Have a Question?



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[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



---

Joe Giacomazza  
Project Management Assistant II  
8/14/2019 1:44:57 PM



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# Definitions/Glossary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

### General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## Job ID: 480-157112-1

### Laboratory: Eurofins TestAmerica, Buffalo

#### Narrative

#### Job Narrative 480-157112-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 8/1/2019 6:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0° C.

#### GC/MS VOA

Method(s) 524.2: The low level laboratory control sample (LLCS) for analytical batch 480-485271 recovered outside control limits for the following analyte: Methylene Chloride. This analyte was biased high in the LLCS and was not detected in the associated samples; therefore, the data have been reported. The following samples are impacted: LVRA-BIA-MW-2-PDB-080119 (480-157112-1), LVRA-BIA-MW-2-080119 (480-157112-2), LVRA-BIA-MW-5-PDB-080119 (480-157112-3) and LVRA-BIA-MW-6-PDB-080119 (480-157112-4).

Method(s) 524.2: The analyte Methylene Chloride was outside recovery limits, biased high, in the Low Level Laboratory Control Sample (LLCS) for analytical batch 480-485481. Methylene Chloride was detected in the following samples: LVRA-GTA-PZ28D-PDB-080119 (480-157112-9). Methylene Chloride is a common laboratory contaminate, therefore any detection may potentially be due to laboratory contamination and should be evaluated accordingly.

Method(s) 524.2: The low level laboratory control sample (LLCS) for analytical batch 480-485481 recovered outside control limits for the following analyte: Methylene Chloride. This analyte was biased high in the LLCS and was not detected in the associated samples; therefore, the data have been reported. The following samples are impacted: LVRA-BIA-MW-6-PDB-080119 (480-157112-4), LVRA-BIA-MW-D1-PDB-080119 (480-157112-5), LVRA-BIA-MW-3-PDB-080119 (480-157112-6), LVRA-GTA-LV8-PDB-080119 (480-157112-7), LVRA-GTA-PZ27-PDB-080119 (480-157112-8), LVRA-CCA-MW-3-PDB-080119 (480-157112-10), LVRA-CCA-MW-3-080119 (480-157112-11), LVRA-CCA-MW-8-PDB-080119 (480-157112-12), LVRA-CCA-MW-1-PDB-080119 (480-157112-13) and TRIP BLANK-080119 (480-157112-14).

Method(s) 524.2: The following sample was diluted to bring the concentration of target analytes within the calibration range: LVRA-BIA-MW-6-PDB-080119 (480-157112-4). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### HPLC/IC

Method(s) 300.0: The following sample was reported with elevated reporting limits for all analytes: LVRA-BIA-MW-2-080119 (480-157112-2). The sample was analyzed at a dilution based on screening results.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### General Chemistry

Method(s) SM 3500 FE D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: LVRA-BIA-MW-2-080119 (480-157112-2) and LVRA-CCA-MW-3-080119 (480-157112-11).

Method(s) 353.2: The following samples were analyzed outside of analytical holding time for Nitrite due to instrument malfunction: LVRA-BIA-MW-2-080119 (480-157112-2) and LVRA-CCA-MW-3-080119 (480-157112-11).

Method(s) SM 5310C, SM 5310D: The sample duplicate precision for the following sample associated with analytical batch 480-486343 was outside control limits: (480-157032-Q-1). Both the sample and duplicate results are below the limit of quantitation and the associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

# Case Narrative

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

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## Job ID: 480-157112-1 (Continued)

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### Laboratory: Eurofins TestAmerica, Buffalo (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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# Detection Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## Client Sample ID: LVRA-BIA-MW-2-PDB-080119

Lab Sample ID: 480-157112-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.31	J	0.50	0.16	ug/L	1		524.2	Total/NA
Acetone	24		5.0	1.0	ug/L	1		524.2	Total/NA
Benzene	0.16	J	0.50	0.13	ug/L	1		524.2	Total/NA
cis-1,2-Dichloroethene	14		0.50	0.12	ug/L	1		524.2	Total/NA
trans-1,2-Dichloroethene	0.14	J	0.50	0.13	ug/L	1		524.2	Total/NA
Trichloroethene	32		0.50	0.18	ug/L	1		524.2	Total/NA
Vinyl chloride	0.62		0.50	0.18	ug/L	1		524.2	Total/NA

## Client Sample ID: LVRA-BIA-MW-2-080119

Lab Sample ID: 480-157112-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.27	J	0.50	0.16	ug/L	1		524.2	Total/NA
Benzene	0.15	J	0.50	0.13	ug/L	1		524.2	Total/NA
cis-1,2-Dichloroethene	13		0.50	0.12	ug/L	1		524.2	Total/NA
Trichloroethene	34		0.50	0.18	ug/L	1		524.2	Total/NA
Vinyl chloride	0.46	J	0.50	0.18	ug/L	1		524.2	Total/NA
Methane	55		4.0	1.0	ug/L	1		RSK-175	Total/NA
Chloride	14.9		1.0	0.56	mg/L	2		300.0	Total/NA
Sulfate	16.1		4.0	0.70	mg/L	2		300.0	Total/NA
Nitrate as N	0.034	J H	0.050	0.020	mg/L	1		353.2	Total/NA
Nitrate Nitrite as N	0.034	J	0.050	0.020	mg/L	1		353.2	Total/NA
Alkalinity, Total	222		5.0	0.79	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate	222		5.0	0.79	mg/L	1		SM 2320B	Total/NA
Total Organic Carbon	1.1		1.0	0.43	mg/L	1		SM 5310C	Total/NA

## Client Sample ID: LVRA-BIA-MW-5-PDB-080119

Lab Sample ID: 480-157112-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	18		5.0	1.0	ug/L	1		524.2	Total/NA

## Client Sample ID: LVRA-BIA-MW-6-PDB-080119

Lab Sample ID: 480-157112-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.53		0.50	0.16	ug/L	1		524.2	Total/NA
Acetone	50		5.0	1.0	ug/L	1		524.2	Total/NA
trans-1,2-Dichloroethene	0.52		0.50	0.13	ug/L	1		524.2	Total/NA
Vinyl chloride	1.2		0.50	0.18	ug/L	1		524.2	Total/NA
cis-1,2-Dichloroethene - DL	110		2.0	0.48	ug/L	4		524.2	Total/NA
Trichloroethene - DL	100		2.0	0.72	ug/L	4		524.2	Total/NA

## Client Sample ID: LVRA-BIA-MW-D1-PDB-080119

Lab Sample ID: 480-157112-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	60		5.0	1.0	ug/L	1		524.2	Total/NA
cis-1,2-Dichloroethene	6.0		0.50	0.12	ug/L	1		524.2	Total/NA
Trichloroethene	9.9		0.50	0.18	ug/L	1		524.2	Total/NA

## Client Sample ID: LVRA-BIA-MW-3-PDB-080119

Lab Sample ID: 480-157112-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	33		5.0	1.0	ug/L	1		524.2	Total/NA
cis-1,2-Dichloroethene	3.0		0.50	0.12	ug/L	1		524.2	Total/NA
Trichloroethene	6.0		0.50	0.18	ug/L	1		524.2	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

# Detection Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## Client Sample ID: LVRA-GTA-LV8-PDB-080119

Lab Sample ID: 480-157112-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	38		5.0	1.0	ug/L	1		524.2	Total/NA

## Client Sample ID: LVRA-GTA-PZ27-PDB-080119

Lab Sample ID: 480-157112-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	78		5.0	1.0	ug/L	1		524.2	Total/NA
Trichloroethene	0.37	J	0.50	0.18	ug/L	1		524.2	Total/NA

## Client Sample ID: LVRA-GTA-PZ28D-PDB-080119

Lab Sample ID: 480-157112-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	34		5.0	1.0	ug/L	1		524.2	Total/NA
Methylene Chloride	5.4	*	2.5	0.99	ug/L	1		524.2	Total/NA
Tetrachloroethene	0.31	J	0.50	0.20	ug/L	1		524.2	Total/NA
Trichloroethene	0.46	J	0.50	0.18	ug/L	1		524.2	Total/NA

## Client Sample ID: LVRA-CCA-MW-3-PDB-080119

Lab Sample ID: 480-157112-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	63		5.0	1.0	ug/L	1		524.2	Total/NA
Trichloroethene	5.2		0.50	0.18	ug/L	1		524.2	Total/NA

## Client Sample ID: LVRA-CCA-MW-3-080119

Lab Sample ID: 480-157112-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.25	J	0.50	0.20	ug/L	1		524.2	Total/NA
Trichloroethene	9.6		0.50	0.18	ug/L	1		524.2	Total/NA
Chloride	22.5		0.50	0.28	mg/L	1		300.0	Total/NA
Sulfate	13.4		2.0	0.35	mg/L	1		300.0	Total/NA
Nitrate as N	0.70	H	0.050	0.020	mg/L	1		353.2	Total/NA
Nitrate Nitrite as N	0.70		0.050	0.020	mg/L	1		353.2	Total/NA
Alkalinity, Total	177		5.0	0.79	mg/L	1		SM 2320B	Total/NA
Alkalinity, Bicarbonate	177		5.0	0.79	mg/L	1		SM 2320B	Total/NA
Total Organic Carbon	0.44	J	1.0	0.43	mg/L	1		SM 5310C	Total/NA

## Client Sample ID: LVRA-CCA-MW-8-PDB-080119

Lab Sample ID: 480-157112-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	59		5.0	1.0	ug/L	1		524.2	Total/NA

## Client Sample ID: LVRA-CCA-MW-1-PDB-080119

Lab Sample ID: 480-157112-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	22		5.0	1.0	ug/L	1		524.2	Total/NA
Trichloroethene	2.1		0.50	0.18	ug/L	1		524.2	Total/NA

## Client Sample ID: TRIP BLANK-080119

Lab Sample ID: 480-157112-14

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-BIA-MW-2-PDB-080119**

**Lab Sample ID: 480-157112-1**

Date Collected: 08/01/19 08:30

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/05/19 15:18	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/05/19 15:18	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/05/19 15:18	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/05/19 15:18	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/05/19 15:18	1
<b>1,1-Dichloroethene</b>	<b>0.31</b>	<b>J</b>	0.50	0.16	ug/L			08/05/19 15:18	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/05/19 15:18	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 15:18	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/05/19 15:18	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 15:18	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/05/19 15:18	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 15:18	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/05/19 15:18	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/05/19 15:18	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/05/19 15:18	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 15:18	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/05/19 15:18	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 15:18	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/05/19 15:18	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/05/19 15:18	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/05/19 15:18	1
2-Hexanone	ND		5.0	1.0	ug/L			08/05/19 15:18	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/05/19 15:18	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/05/19 15:18	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/05/19 15:18	1
<b>Acetone</b>	<b>24</b>		5.0	1.0	ug/L			08/05/19 15:18	1
Acrylonitrile	ND		10	2.2	ug/L			08/05/19 15:18	1
Allyl chloride	ND		0.50	0.22	ug/L			08/05/19 15:18	1
<b>Benzene</b>	<b>0.16</b>	<b>J</b>	0.50	0.13	ug/L			08/05/19 15:18	1
Bromobenzene	ND		0.50	0.13	ug/L			08/05/19 15:18	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/05/19 15:18	1
Bromoform	ND		0.50	0.13	ug/L			08/05/19 15:18	1
Bromomethane	ND		0.50	0.23	ug/L			08/05/19 15:18	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/05/19 15:18	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/05/19 15:18	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/05/19 15:18	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/05/19 15:18	1
Chloroethane	ND		0.50	0.20	ug/L			08/05/19 15:18	1
Chloroform	ND		0.50	0.14	ug/L			08/05/19 15:18	1
Chloromethane	ND		0.50	0.17	ug/L			08/05/19 15:18	1
<b>cis-1,2-Dichloroethene</b>	<b>14</b>		0.50	0.12	ug/L			08/05/19 15:18	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/05/19 15:18	1
Dibromomethane	ND		0.50	0.17	ug/L			08/05/19 15:18	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/05/19 15:18	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/05/19 15:18	1
Ethyl ether	ND		0.50	0.12	ug/L			08/05/19 15:18	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/05/19 15:18	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/05/19 15:18	1
Iodomethane	ND		0.50	0.15	ug/L			08/05/19 15:18	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-BIA-MW-2-PDB-080119**

**Lab Sample ID: 480-157112-1**

Date Collected: 08/01/19 08:30

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/05/19 15:18	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/05/19 15:18	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/05/19 15:18	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/05/19 15:18	1
Naphthalene	ND		0.50	0.15	ug/L			08/05/19 15:18	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/05/19 15:18	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/05/19 15:18	1
o-Xylene	ND		0.50	0.12	ug/L			08/05/19 15:18	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/05/19 15:18	1
Styrene	ND		0.50	0.13	ug/L			08/05/19 15:18	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/05/19 15:18	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/05/19 15:18	1
Toluene	ND		0.50	0.10	ug/L			08/05/19 15:18	1
<b>trans-1,2-Dichloroethene</b>	<b>0.14</b>	<b>J</b>	0.50	0.13	ug/L			08/05/19 15:18	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/05/19 15:18	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/05/19 15:18	1
<b>Trichloroethene</b>	<b>32</b>		0.50	0.18	ug/L			08/05/19 15:18	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/05/19 15:18	1
<b>Vinyl chloride</b>	<b>0.62</b>		0.50	0.18	ug/L			08/05/19 15:18	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	6.0	TJ	ug/L		3.12			08/05/19 15:18	1
Unknown	8.8	TJ	ug/L		4.47			08/05/19 15:18	1
Furan, tetrahydro-	1.8	TJN	ug/L		4.65	109-99-9		08/05/19 15:18	1
Unknown	3.5	TJ	ug/L		9.76			08/05/19 15:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	113		80 - 120		08/05/19 15:18	1
4-Bromofluorobenzene (Surr)	90		80 - 120		08/05/19 15:18	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-BIA-MW-2-080119**

**Lab Sample ID: 480-157112-2**

Date Collected: 08/01/19 09:30

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/05/19 15:43	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/05/19 15:43	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/05/19 15:43	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/05/19 15:43	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/05/19 15:43	1
<b>1,1-Dichloroethene</b>	<b>0.27</b>	<b>J</b>	0.50	0.16	ug/L			08/05/19 15:43	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/05/19 15:43	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 15:43	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/05/19 15:43	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 15:43	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/05/19 15:43	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 15:43	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/05/19 15:43	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/05/19 15:43	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/05/19 15:43	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 15:43	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/05/19 15:43	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 15:43	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/05/19 15:43	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/05/19 15:43	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/05/19 15:43	1
2-Hexanone	ND		5.0	1.0	ug/L			08/05/19 15:43	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/05/19 15:43	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/05/19 15:43	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/05/19 15:43	1
Acetone	ND		5.0	1.0	ug/L			08/05/19 15:43	1
Acrylonitrile	ND		10	2.2	ug/L			08/05/19 15:43	1
Allyl chloride	ND		0.50	0.22	ug/L			08/05/19 15:43	1
<b>Benzene</b>	<b>0.15</b>	<b>J</b>	0.50	0.13	ug/L			08/05/19 15:43	1
Bromobenzene	ND		0.50	0.13	ug/L			08/05/19 15:43	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/05/19 15:43	1
Bromoform	ND		0.50	0.13	ug/L			08/05/19 15:43	1
Bromomethane	ND		0.50	0.23	ug/L			08/05/19 15:43	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/05/19 15:43	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/05/19 15:43	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/05/19 15:43	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/05/19 15:43	1
Chloroethane	ND		0.50	0.20	ug/L			08/05/19 15:43	1
Chloroform	ND		0.50	0.14	ug/L			08/05/19 15:43	1
Chloromethane	ND		0.50	0.17	ug/L			08/05/19 15:43	1
<b>cis-1,2-Dichloroethene</b>	<b>13</b>		0.50	0.12	ug/L			08/05/19 15:43	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/05/19 15:43	1
Dibromomethane	ND		0.50	0.17	ug/L			08/05/19 15:43	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/05/19 15:43	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/05/19 15:43	1
Ethyl ether	ND		0.50	0.12	ug/L			08/05/19 15:43	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/05/19 15:43	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/05/19 15:43	1
Iodomethane	ND		0.50	0.15	ug/L			08/05/19 15:43	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-BIA-MW-2-080119**

**Lab Sample ID: 480-157112-2**

Date Collected: 08/01/19 09:30

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/05/19 15:43	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/05/19 15:43	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/05/19 15:43	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/05/19 15:43	1
Naphthalene	ND		0.50	0.15	ug/L			08/05/19 15:43	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/05/19 15:43	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/05/19 15:43	1
o-Xylene	ND		0.50	0.12	ug/L			08/05/19 15:43	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/05/19 15:43	1
Styrene	ND		0.50	0.13	ug/L			08/05/19 15:43	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/05/19 15:43	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/05/19 15:43	1
Toluene	ND		0.50	0.10	ug/L			08/05/19 15:43	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/05/19 15:43	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/05/19 15:43	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/05/19 15:43	1
<b>Trichloroethene</b>	<b>34</b>		0.50	0.18	ug/L			08/05/19 15:43	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/05/19 15:43	1
<b>Vinyl chloride</b>	<b>0.46</b>	<b>J</b>	0.50	0.18	ug/L			08/05/19 15:43	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	0.54	TJ	ug/L		9.76			08/05/19 15:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	106		80 - 120		08/05/19 15:43	1
4-Bromofluorobenzene (Surr)	94		80 - 120		08/05/19 15:43	1

**Method: RSK-175 - Dissolved Gases (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methane</b>	<b>55</b>		4.0	1.0	ug/L			08/05/19 14:59	1
Ethane	ND		7.5	1.5	ug/L			08/05/19 14:59	1
Ethene	ND		7.0	1.5	ug/L			08/05/19 14:59	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>14.9</b>		1.0	0.56	mg/L			08/06/19 14:22	2
<b>Sulfate</b>	<b>16.1</b>		4.0	0.70	mg/L			08/06/19 14:22	2
<b>Nitrate as N</b>	<b>0.034</b>	<b>J H</b>	0.050	0.020	mg/L			08/05/19 13:20	1
<b>Nitrate Nitrite as N</b>	<b>0.034</b>	<b>J</b>	0.050	0.020	mg/L			08/02/19 19:06	1
Nitrite as N	ND	H	0.050	0.020	mg/L			08/05/19 13:20	1
<b>Alkalinity, Total</b>	<b>222</b>		5.0	0.79	mg/L			08/10/19 02:10	1
<b>Alkalinity, Bicarbonate</b>	<b>222</b>		5.0	0.79	mg/L			08/10/19 02:10	1
Alkalinity, Carbonate	ND		5.0	0.79	mg/L			08/10/19 02:10	1
Hydroxide Alkalinity	ND		5.0	0.79	mg/L			08/10/19 02:10	1
Sulfide	ND		1.0	0.67	mg/L			08/07/19 15:10	1
<b>Total Organic Carbon</b>	<b>1.1</b>		1.0	0.43	mg/L			08/11/19 01:45	1

**General Chemistry - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferrous Iron, Dissolved	ND	HF	0.10	0.075	mg/L			08/13/19 13:25	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-BIA-MW-5-PDB-080119**

**Lab Sample ID: 480-157112-3**

Date Collected: 08/01/19 10:10

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/05/19 16:08	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/05/19 16:08	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/05/19 16:08	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/05/19 16:08	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/05/19 16:08	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/05/19 16:08	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/05/19 16:08	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 16:08	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/05/19 16:08	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 16:08	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/05/19 16:08	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 16:08	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/05/19 16:08	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/05/19 16:08	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/05/19 16:08	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 16:08	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/05/19 16:08	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 16:08	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/05/19 16:08	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/05/19 16:08	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/05/19 16:08	1
2-Hexanone	ND		5.0	1.0	ug/L			08/05/19 16:08	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/05/19 16:08	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/05/19 16:08	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/05/19 16:08	1
<b>Acetone</b>	<b>18</b>		5.0	1.0	ug/L			08/05/19 16:08	1
Acrylonitrile	ND		10	2.2	ug/L			08/05/19 16:08	1
Allyl chloride	ND		0.50	0.22	ug/L			08/05/19 16:08	1
Benzene	ND		0.50	0.13	ug/L			08/05/19 16:08	1
Bromobenzene	ND		0.50	0.13	ug/L			08/05/19 16:08	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/05/19 16:08	1
Bromoform	ND		0.50	0.13	ug/L			08/05/19 16:08	1
Bromomethane	ND		0.50	0.23	ug/L			08/05/19 16:08	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/05/19 16:08	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/05/19 16:08	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/05/19 16:08	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/05/19 16:08	1
Chloroethane	ND		0.50	0.20	ug/L			08/05/19 16:08	1
Chloroform	ND		0.50	0.14	ug/L			08/05/19 16:08	1
Chloromethane	ND		0.50	0.17	ug/L			08/05/19 16:08	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/05/19 16:08	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/05/19 16:08	1
Dibromomethane	ND		0.50	0.17	ug/L			08/05/19 16:08	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/05/19 16:08	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/05/19 16:08	1
Ethyl ether	ND		0.50	0.12	ug/L			08/05/19 16:08	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/05/19 16:08	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/05/19 16:08	1
Iodomethane	ND		0.50	0.15	ug/L			08/05/19 16:08	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-BIA-MW-5-PDB-080119**

**Lab Sample ID: 480-157112-3**

Date Collected: 08/01/19 10:10

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/05/19 16:08	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/05/19 16:08	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/05/19 16:08	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/05/19 16:08	1
Naphthalene	ND		0.50	0.15	ug/L			08/05/19 16:08	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/05/19 16:08	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/05/19 16:08	1
o-Xylene	ND		0.50	0.12	ug/L			08/05/19 16:08	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/05/19 16:08	1
Styrene	ND		0.50	0.13	ug/L			08/05/19 16:08	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/05/19 16:08	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/05/19 16:08	1
Toluene	ND		0.50	0.10	ug/L			08/05/19 16:08	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/05/19 16:08	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/05/19 16:08	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/05/19 16:08	1
Trichloroethene	ND		0.50	0.18	ug/L			08/05/19 16:08	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/05/19 16:08	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/05/19 16:08	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Isopropyl Alcohol	7.9	T J N	ug/L		3.13	67-63-0		08/05/19 16:08	1
Ethyl Acetate	7.9	T J N	ug/L		4.48	141-78-6		08/05/19 16:08	1
Furan, tetrahydro-	1.6	T J N	ug/L		4.65	109-99-9		08/05/19 16:08	1
Unknown	3.9	T J	ug/L		9.76			08/05/19 16:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	114		80 - 120		08/05/19 16:08	1
4-Bromofluorobenzene (Surr)	91		80 - 120		08/05/19 16:08	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-BIA-MW-6-PDB-080119**

**Lab Sample ID: 480-157112-4**

Date Collected: 08/01/19 10:40

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/05/19 16:32	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/05/19 16:32	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/05/19 16:32	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/05/19 16:32	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/05/19 16:32	1
<b>1,1-Dichloroethene</b>	<b>0.53</b>		0.50	0.16	ug/L			08/05/19 16:32	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/05/19 16:32	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 16:32	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/05/19 16:32	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 16:32	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/05/19 16:32	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 16:32	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/05/19 16:32	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/05/19 16:32	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/05/19 16:32	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 16:32	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/05/19 16:32	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 16:32	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/05/19 16:32	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/05/19 16:32	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/05/19 16:32	1
2-Hexanone	ND		5.0	1.0	ug/L			08/05/19 16:32	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/05/19 16:32	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/05/19 16:32	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/05/19 16:32	1
<b>Acetone</b>	<b>50</b>		5.0	1.0	ug/L			08/05/19 16:32	1
Acrylonitrile	ND		10	2.2	ug/L			08/05/19 16:32	1
Allyl chloride	ND		0.50	0.22	ug/L			08/05/19 16:32	1
Benzene	ND		0.50	0.13	ug/L			08/05/19 16:32	1
Bromobenzene	ND		0.50	0.13	ug/L			08/05/19 16:32	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/05/19 16:32	1
Bromoform	ND		0.50	0.13	ug/L			08/05/19 16:32	1
Bromomethane	ND		0.50	0.23	ug/L			08/05/19 16:32	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/05/19 16:32	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/05/19 16:32	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/05/19 16:32	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/05/19 16:32	1
Chloroethane	ND		0.50	0.20	ug/L			08/05/19 16:32	1
Chloroform	ND		0.50	0.14	ug/L			08/05/19 16:32	1
Chloromethane	ND		0.50	0.17	ug/L			08/05/19 16:32	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/05/19 16:32	1
Dibromomethane	ND		0.50	0.17	ug/L			08/05/19 16:32	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/05/19 16:32	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/05/19 16:32	1
Ethyl ether	ND		0.50	0.12	ug/L			08/05/19 16:32	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/05/19 16:32	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/05/19 16:32	1
Iodomethane	ND		0.50	0.15	ug/L			08/05/19 16:32	1
Isopropylbenzene	ND		0.50	0.16	ug/L			08/05/19 16:32	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-BIA-MW-6-PDB-080119**

**Lab Sample ID: 480-157112-4**

Date Collected: 08/01/19 10:40

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/05/19 16:32	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/05/19 16:32	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/05/19 16:32	1
Naphthalene	ND		0.50	0.15	ug/L			08/05/19 16:32	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/05/19 16:32	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/05/19 16:32	1
o-Xylene	ND		0.50	0.12	ug/L			08/05/19 16:32	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/05/19 16:32	1
Styrene	ND		0.50	0.13	ug/L			08/05/19 16:32	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/05/19 16:32	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/05/19 16:32	1
Toluene	ND		0.50	0.10	ug/L			08/05/19 16:32	1
<b>trans-1,2-Dichloroethene</b>	<b>0.52</b>		0.50	0.13	ug/L			08/05/19 16:32	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/05/19 16:32	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/05/19 16:32	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/05/19 16:32	1
<b>Vinyl chloride</b>	<b>1.2</b>		0.50	0.18	ug/L			08/05/19 16:32	1
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Isopropyl Alcohol</i>	5.1	T J N	ug/L		3.13	67-63-0		08/05/19 16:32	1
<i>Unknown</i>	11	T J	ug/L		4.47			08/05/19 16:32	1
<i>Furan, tetrahydro-</i>	1.9	T J N	ug/L		4.65	109-99-9		08/05/19 16:32	1
<i>Unknown</i>	5.4	T J	ug/L		9.76			08/05/19 16:32	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1,2-Dichlorobenzene-d4</i>	113		80 - 120					08/05/19 16:32	1
<i>4-Bromofluorobenzene (Surr)</i>	90		80 - 120					08/05/19 16:32	1

**Method: 524.2 - Volatile Organic Compounds (GC/MS) - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>cis-1,2-Dichloroethene</b>	<b>110</b>		2.0	0.48	ug/L			08/06/19 09:46	4
<b>Trichloroethene</b>	<b>100</b>		2.0	0.72	ug/L			08/06/19 09:46	4
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Unknown</i>	4.9	T J	ug/L		3.13			08/06/19 09:46	4
<i>Ethyl Acetate</i>	10	T J N	ug/L		4.48	141-78-6		08/06/19 09:46	4
<i>Furan, tetrahydro-</i>	2.1	T J N	ug/L		4.66	109-99-9		08/06/19 09:46	4
<i>Unknown</i>	3.7	T J	ug/L		9.76			08/06/19 09:46	4
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1,2-Dichlorobenzene-d4</i>	105		80 - 120					08/06/19 09:46	4
<i>4-Bromofluorobenzene (Surr)</i>	90		80 - 120					08/06/19 09:46	4

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-BIA-MW-D1-PDB-080119**

**Lab Sample ID: 480-157112-5**

Date Collected: 08/01/19 10:55

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/06/19 10:11	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/06/19 10:11	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/06/19 10:11	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/06/19 10:11	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/06/19 10:11	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/06/19 10:11	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/06/19 10:11	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 10:11	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/06/19 10:11	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 10:11	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/06/19 10:11	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 10:11	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/06/19 10:11	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/06/19 10:11	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/06/19 10:11	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 10:11	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/06/19 10:11	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 10:11	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/06/19 10:11	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/06/19 10:11	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/06/19 10:11	1
2-Hexanone	ND		5.0	1.0	ug/L			08/06/19 10:11	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/06/19 10:11	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/06/19 10:11	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/06/19 10:11	1
<b>Acetone</b>	<b>60</b>		5.0	1.0	ug/L			08/06/19 10:11	1
Acrylonitrile	ND		10	2.2	ug/L			08/06/19 10:11	1
Allyl chloride	ND		0.50	0.22	ug/L			08/06/19 10:11	1
Benzene	ND		0.50	0.13	ug/L			08/06/19 10:11	1
Bromobenzene	ND		0.50	0.13	ug/L			08/06/19 10:11	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/06/19 10:11	1
Bromoform	ND		0.50	0.13	ug/L			08/06/19 10:11	1
Bromomethane	ND		0.50	0.23	ug/L			08/06/19 10:11	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/06/19 10:11	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/06/19 10:11	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/06/19 10:11	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/06/19 10:11	1
Chloroethane	ND		0.50	0.20	ug/L			08/06/19 10:11	1
Chloroform	ND		0.50	0.14	ug/L			08/06/19 10:11	1
Chloromethane	ND		0.50	0.17	ug/L			08/06/19 10:11	1
<b>cis-1,2-Dichloroethene</b>	<b>6.0</b>		0.50	0.12	ug/L			08/06/19 10:11	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/06/19 10:11	1
Dibromomethane	ND		0.50	0.17	ug/L			08/06/19 10:11	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/06/19 10:11	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/06/19 10:11	1
Ethyl ether	ND		0.50	0.12	ug/L			08/06/19 10:11	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/06/19 10:11	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/06/19 10:11	1
Iodomethane	ND		0.50	0.15	ug/L			08/06/19 10:11	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-BIA-MW-D1-PDB-080119**

**Lab Sample ID: 480-157112-5**

Date Collected: 08/01/19 10:55

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/06/19 10:11	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/06/19 10:11	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/06/19 10:11	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/06/19 10:11	1
Naphthalene	ND		0.50	0.15	ug/L			08/06/19 10:11	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/06/19 10:11	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/06/19 10:11	1
o-Xylene	ND		0.50	0.12	ug/L			08/06/19 10:11	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/06/19 10:11	1
Styrene	ND		0.50	0.13	ug/L			08/06/19 10:11	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/06/19 10:11	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/06/19 10:11	1
Toluene	ND		0.50	0.10	ug/L			08/06/19 10:11	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/06/19 10:11	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/06/19 10:11	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/06/19 10:11	1
<b>Trichloroethene</b>	<b>9.9</b>		0.50	0.18	ug/L			08/06/19 10:11	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/06/19 10:11	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/06/19 10:11	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	1.1	T J	ug/L		3.13			08/06/19 10:11	1
Unknown	12	T J	ug/L		4.48			08/06/19 10:11	1
Furan, tetrahydro-	2.0	T J N	ug/L		4.66	109-99-9		08/06/19 10:11	1
Unknown	5.1	T J	ug/L		9.76			08/06/19 10:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	114		80 - 120		08/06/19 10:11	1
4-Bromofluorobenzene (Surr)	90		80 - 120		08/06/19 10:11	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-BIA-MW-3-PDB-080119**

**Lab Sample ID: 480-157112-6**

Date Collected: 08/01/19 11:10

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/06/19 12:42	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/06/19 12:42	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/06/19 12:42	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/06/19 12:42	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/06/19 12:42	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/06/19 12:42	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/06/19 12:42	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 12:42	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/06/19 12:42	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 12:42	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/06/19 12:42	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 12:42	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/06/19 12:42	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/06/19 12:42	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/06/19 12:42	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 12:42	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/06/19 12:42	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 12:42	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/06/19 12:42	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/06/19 12:42	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/06/19 12:42	1
2-Hexanone	ND		5.0	1.0	ug/L			08/06/19 12:42	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/06/19 12:42	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/06/19 12:42	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/06/19 12:42	1
<b>Acetone</b>	<b>33</b>		5.0	1.0	ug/L			08/06/19 12:42	1
Acrylonitrile	ND		10	2.2	ug/L			08/06/19 12:42	1
Allyl chloride	ND		0.50	0.22	ug/L			08/06/19 12:42	1
Benzene	ND		0.50	0.13	ug/L			08/06/19 12:42	1
Bromobenzene	ND		0.50	0.13	ug/L			08/06/19 12:42	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/06/19 12:42	1
Bromoform	ND		0.50	0.13	ug/L			08/06/19 12:42	1
Bromomethane	ND		0.50	0.23	ug/L			08/06/19 12:42	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/06/19 12:42	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/06/19 12:42	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/06/19 12:42	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/06/19 12:42	1
Chloroethane	ND		0.50	0.20	ug/L			08/06/19 12:42	1
Chloroform	ND		0.50	0.14	ug/L			08/06/19 12:42	1
Chloromethane	ND		0.50	0.17	ug/L			08/06/19 12:42	1
<b>cis-1,2-Dichloroethene</b>	<b>3.0</b>		0.50	0.12	ug/L			08/06/19 12:42	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/06/19 12:42	1
Dibromomethane	ND		0.50	0.17	ug/L			08/06/19 12:42	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/06/19 12:42	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/06/19 12:42	1
Ethyl ether	ND		0.50	0.12	ug/L			08/06/19 12:42	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/06/19 12:42	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/06/19 12:42	1
Iodomethane	ND		0.50	0.15	ug/L			08/06/19 12:42	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-BIA-MW-3-PDB-080119**

**Lab Sample ID: 480-157112-6**

Date Collected: 08/01/19 11:10

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/06/19 12:42	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/06/19 12:42	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/06/19 12:42	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/06/19 12:42	1
Naphthalene	ND		0.50	0.15	ug/L			08/06/19 12:42	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/06/19 12:42	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/06/19 12:42	1
o-Xylene	ND		0.50	0.12	ug/L			08/06/19 12:42	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/06/19 12:42	1
Styrene	ND		0.50	0.13	ug/L			08/06/19 12:42	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/06/19 12:42	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/06/19 12:42	1
Toluene	ND		0.50	0.10	ug/L			08/06/19 12:42	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/06/19 12:42	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/06/19 12:42	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/06/19 12:42	1
<b>Trichloroethene</b>	<b>6.0</b>		0.50	0.18	ug/L			08/06/19 12:42	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/06/19 12:42	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/06/19 12:42	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Isopropyl Alcohol	7.8	T J N	ug/L		3.13	67-63-0		08/06/19 12:42	1
Ethyl Acetate	6.0	T J N	ug/L		4.48	141-78-6		08/06/19 12:42	1
Furan, tetrahydro-	1.5	T J N	ug/L		4.66	109-99-9		08/06/19 12:42	1
Unknown	3.5	T J	ug/L		9.76			08/06/19 12:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	112		80 - 120		08/06/19 12:42	1
4-Bromofluorobenzene (Surr)	91		80 - 120		08/06/19 12:42	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-GTA-LV8-PDB-080119**

**Lab Sample ID: 480-157112-7**

Date Collected: 08/01/19 11:45

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/06/19 13:07	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/06/19 13:07	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/06/19 13:07	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/06/19 13:07	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/06/19 13:07	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/06/19 13:07	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/06/19 13:07	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 13:07	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/06/19 13:07	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 13:07	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/06/19 13:07	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 13:07	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/06/19 13:07	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/06/19 13:07	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/06/19 13:07	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 13:07	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/06/19 13:07	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 13:07	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/06/19 13:07	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/06/19 13:07	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/06/19 13:07	1
2-Hexanone	ND		5.0	1.0	ug/L			08/06/19 13:07	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/06/19 13:07	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/06/19 13:07	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/06/19 13:07	1
<b>Acetone</b>	<b>38</b>		5.0	1.0	ug/L			08/06/19 13:07	1
Acrylonitrile	ND		10	2.2	ug/L			08/06/19 13:07	1
Allyl chloride	ND		0.50	0.22	ug/L			08/06/19 13:07	1
Benzene	ND		0.50	0.13	ug/L			08/06/19 13:07	1
Bromobenzene	ND		0.50	0.13	ug/L			08/06/19 13:07	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/06/19 13:07	1
Bromoform	ND		0.50	0.13	ug/L			08/06/19 13:07	1
Bromomethane	ND		0.50	0.23	ug/L			08/06/19 13:07	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/06/19 13:07	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/06/19 13:07	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/06/19 13:07	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/06/19 13:07	1
Chloroethane	ND		0.50	0.20	ug/L			08/06/19 13:07	1
Chloroform	ND		0.50	0.14	ug/L			08/06/19 13:07	1
Chloromethane	ND		0.50	0.17	ug/L			08/06/19 13:07	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/06/19 13:07	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/06/19 13:07	1
Dibromomethane	ND		0.50	0.17	ug/L			08/06/19 13:07	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/06/19 13:07	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/06/19 13:07	1
Ethyl ether	ND		0.50	0.12	ug/L			08/06/19 13:07	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/06/19 13:07	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/06/19 13:07	1
Iodomethane	ND		0.50	0.15	ug/L			08/06/19 13:07	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-GTA-LV8-PDB-080119**

**Lab Sample ID: 480-157112-7**

Date Collected: 08/01/19 11:45

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/06/19 13:07	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/06/19 13:07	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/06/19 13:07	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/06/19 13:07	1
Naphthalene	ND		0.50	0.15	ug/L			08/06/19 13:07	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/06/19 13:07	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/06/19 13:07	1
o-Xylene	ND		0.50	0.12	ug/L			08/06/19 13:07	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/06/19 13:07	1
Styrene	ND		0.50	0.13	ug/L			08/06/19 13:07	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/06/19 13:07	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/06/19 13:07	1
Toluene	ND		0.50	0.10	ug/L			08/06/19 13:07	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/06/19 13:07	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/06/19 13:07	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/06/19 13:07	1
Trichloroethene	ND		0.50	0.18	ug/L			08/06/19 13:07	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/06/19 13:07	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/06/19 13:07	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Isopropyl Alcohol	7.0	T J N	ug/L		3.13	67-63-0		08/06/19 13:07	1
Unknown	6.5	T J	ug/L		4.48			08/06/19 13:07	1
Furan, tetrahydro-	1.8	T J N	ug/L		4.66	109-99-9		08/06/19 13:07	1
Unknown	3.9	T J	ug/L		9.76			08/06/19 13:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	110		80 - 120		08/06/19 13:07	1
4-Bromofluorobenzene (Surr)	90		80 - 120		08/06/19 13:07	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-GTA-PZ27-PDB-080119**

**Lab Sample ID: 480-157112-8**

Date Collected: 08/01/19 12:30

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/06/19 13:32	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/06/19 13:32	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/06/19 13:32	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/06/19 13:32	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/06/19 13:32	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/06/19 13:32	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/06/19 13:32	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 13:32	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/06/19 13:32	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 13:32	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/06/19 13:32	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 13:32	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/06/19 13:32	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/06/19 13:32	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/06/19 13:32	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 13:32	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/06/19 13:32	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 13:32	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/06/19 13:32	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/06/19 13:32	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/06/19 13:32	1
2-Hexanone	ND		5.0	1.0	ug/L			08/06/19 13:32	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/06/19 13:32	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/06/19 13:32	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/06/19 13:32	1
<b>Acetone</b>	<b>78</b>		5.0	1.0	ug/L			08/06/19 13:32	1
Acrylonitrile	ND		10	2.2	ug/L			08/06/19 13:32	1
Allyl chloride	ND		0.50	0.22	ug/L			08/06/19 13:32	1
Benzene	ND		0.50	0.13	ug/L			08/06/19 13:32	1
Bromobenzene	ND		0.50	0.13	ug/L			08/06/19 13:32	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/06/19 13:32	1
Bromoform	ND		0.50	0.13	ug/L			08/06/19 13:32	1
Bromomethane	ND		0.50	0.23	ug/L			08/06/19 13:32	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/06/19 13:32	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/06/19 13:32	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/06/19 13:32	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/06/19 13:32	1
Chloroethane	ND		0.50	0.20	ug/L			08/06/19 13:32	1
Chloroform	ND		0.50	0.14	ug/L			08/06/19 13:32	1
Chloromethane	ND		0.50	0.17	ug/L			08/06/19 13:32	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/06/19 13:32	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/06/19 13:32	1
Dibromomethane	ND		0.50	0.17	ug/L			08/06/19 13:32	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/06/19 13:32	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/06/19 13:32	1
Ethyl ether	ND		0.50	0.12	ug/L			08/06/19 13:32	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/06/19 13:32	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/06/19 13:32	1
Iodomethane	ND		0.50	0.15	ug/L			08/06/19 13:32	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-GTA-PZ27-PDB-080119**

**Lab Sample ID: 480-157112-8**

Date Collected: 08/01/19 12:30

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/06/19 13:32	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/06/19 13:32	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/06/19 13:32	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/06/19 13:32	1
Naphthalene	ND		0.50	0.15	ug/L			08/06/19 13:32	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/06/19 13:32	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/06/19 13:32	1
o-Xylene	ND		0.50	0.12	ug/L			08/06/19 13:32	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/06/19 13:32	1
Styrene	ND		0.50	0.13	ug/L			08/06/19 13:32	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/06/19 13:32	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/06/19 13:32	1
Toluene	ND		0.50	0.10	ug/L			08/06/19 13:32	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/06/19 13:32	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/06/19 13:32	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/06/19 13:32	1
<b>Trichloroethene</b>	<b>0.37</b>	<b>J</b>	0.50	0.18	ug/L			08/06/19 13:32	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/06/19 13:32	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/06/19 13:32	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	0.82	T J	ug/L		3.13			08/06/19 13:32	1
Ethyl Acetate	12	T J N	ug/L		4.48	141-78-6		08/06/19 13:32	1
Furan, tetrahydro-	2.3	T J N	ug/L		4.66	109-99-9		08/06/19 13:32	1
Unknown	4.5	T J	ug/L		9.76			08/06/19 13:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	112		80 - 120		08/06/19 13:32	1
4-Bromofluorobenzene (Surr)	91		80 - 120		08/06/19 13:32	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-GTA-PZ28D-PDB-080119**

**Lab Sample ID: 480-157112-9**

Date Collected: 08/01/19 12:40

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/06/19 13:57	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/06/19 13:57	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/06/19 13:57	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/06/19 13:57	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/06/19 13:57	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/06/19 13:57	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/06/19 13:57	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 13:57	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/06/19 13:57	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 13:57	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/06/19 13:57	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 13:57	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/06/19 13:57	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/06/19 13:57	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/06/19 13:57	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 13:57	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/06/19 13:57	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 13:57	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/06/19 13:57	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/06/19 13:57	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/06/19 13:57	1
2-Hexanone	ND		5.0	1.0	ug/L			08/06/19 13:57	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/06/19 13:57	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/06/19 13:57	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/06/19 13:57	1
<b>Acetone</b>	<b>34</b>		5.0	1.0	ug/L			08/06/19 13:57	1
Acrylonitrile	ND		10	2.2	ug/L			08/06/19 13:57	1
Allyl chloride	ND		0.50	0.22	ug/L			08/06/19 13:57	1
Benzene	ND		0.50	0.13	ug/L			08/06/19 13:57	1
Bromobenzene	ND		0.50	0.13	ug/L			08/06/19 13:57	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/06/19 13:57	1
Bromoform	ND		0.50	0.13	ug/L			08/06/19 13:57	1
Bromomethane	ND		0.50	0.23	ug/L			08/06/19 13:57	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/06/19 13:57	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/06/19 13:57	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/06/19 13:57	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/06/19 13:57	1
Chloroethane	ND		0.50	0.20	ug/L			08/06/19 13:57	1
Chloroform	ND		0.50	0.14	ug/L			08/06/19 13:57	1
Chloromethane	ND		0.50	0.17	ug/L			08/06/19 13:57	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/06/19 13:57	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/06/19 13:57	1
Dibromomethane	ND		0.50	0.17	ug/L			08/06/19 13:57	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/06/19 13:57	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/06/19 13:57	1
Ethyl ether	ND		0.50	0.12	ug/L			08/06/19 13:57	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/06/19 13:57	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/06/19 13:57	1
Iodomethane	ND		0.50	0.15	ug/L			08/06/19 13:57	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-GTA-PZ28D-PDB-080119**

**Lab Sample ID: 480-157112-9**

Date Collected: 08/01/19 12:40

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/06/19 13:57	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/06/19 13:57	1
<b>Methylene Chloride</b>	<b>5.4</b>	<b>*</b>	2.5	0.99	ug/L			08/06/19 13:57	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/06/19 13:57	1
Naphthalene	ND		0.50	0.15	ug/L			08/06/19 13:57	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/06/19 13:57	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/06/19 13:57	1
o-Xylene	ND		0.50	0.12	ug/L			08/06/19 13:57	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/06/19 13:57	1
Styrene	ND		0.50	0.13	ug/L			08/06/19 13:57	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/06/19 13:57	1
<b>Tetrachloroethene</b>	<b>0.31</b>	<b>J</b>	0.50	0.20	ug/L			08/06/19 13:57	1
Toluene	ND		0.50	0.10	ug/L			08/06/19 13:57	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/06/19 13:57	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/06/19 13:57	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/06/19 13:57	1
<b>Trichloroethene</b>	<b>0.46</b>	<b>J</b>	0.50	0.18	ug/L			08/06/19 13:57	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/06/19 13:57	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/06/19 13:57	1
<b>Tentatively Identified Compound</b>	<b>Est. Result</b>	<b>Qualifier</b>	<b>Unit</b>	<b>D</b>	<b>RT</b>	<b>CAS No.</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Unknown	8.3	TJ	ug/L		3.13			08/06/19 13:57	1
Ethyl Acetate	4.3	TJN	ug/L		4.48	141-78-6		08/06/19 13:57	1
Unknown	2.7	TJ	ug/L		9.76			08/06/19 13:57	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichlorobenzene-d4	116		80 - 120					08/06/19 13:57	1
4-Bromofluorobenzene (Surr)	89		80 - 120					08/06/19 13:57	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-CCA-MW-3-PDB-080119**

**Lab Sample ID: 480-157112-10**

Date Collected: 08/01/19 13:45

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/06/19 14:22	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/06/19 14:22	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/06/19 14:22	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/06/19 14:22	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/06/19 14:22	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/06/19 14:22	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/06/19 14:22	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 14:22	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/06/19 14:22	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 14:22	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/06/19 14:22	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 14:22	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/06/19 14:22	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/06/19 14:22	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/06/19 14:22	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 14:22	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/06/19 14:22	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 14:22	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/06/19 14:22	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/06/19 14:22	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/06/19 14:22	1
2-Hexanone	ND		5.0	1.0	ug/L			08/06/19 14:22	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/06/19 14:22	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/06/19 14:22	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/06/19 14:22	1
<b>Acetone</b>	<b>63</b>		5.0	1.0	ug/L			08/06/19 14:22	1
Acrylonitrile	ND		10	2.2	ug/L			08/06/19 14:22	1
Allyl chloride	ND		0.50	0.22	ug/L			08/06/19 14:22	1
Benzene	ND		0.50	0.13	ug/L			08/06/19 14:22	1
Bromobenzene	ND		0.50	0.13	ug/L			08/06/19 14:22	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/06/19 14:22	1
Bromoform	ND		0.50	0.13	ug/L			08/06/19 14:22	1
Bromomethane	ND		0.50	0.23	ug/L			08/06/19 14:22	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/06/19 14:22	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/06/19 14:22	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/06/19 14:22	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/06/19 14:22	1
Chloroethane	ND		0.50	0.20	ug/L			08/06/19 14:22	1
Chloroform	ND		0.50	0.14	ug/L			08/06/19 14:22	1
Chloromethane	ND		0.50	0.17	ug/L			08/06/19 14:22	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/06/19 14:22	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/06/19 14:22	1
Dibromomethane	ND		0.50	0.17	ug/L			08/06/19 14:22	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/06/19 14:22	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/06/19 14:22	1
Ethyl ether	ND		0.50	0.12	ug/L			08/06/19 14:22	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/06/19 14:22	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/06/19 14:22	1
Iodomethane	ND		0.50	0.15	ug/L			08/06/19 14:22	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-CCA-MW-3-PDB-080119**

**Lab Sample ID: 480-157112-10**

Date Collected: 08/01/19 13:45

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/06/19 14:22	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/06/19 14:22	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/06/19 14:22	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/06/19 14:22	1
Naphthalene	ND		0.50	0.15	ug/L			08/06/19 14:22	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/06/19 14:22	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/06/19 14:22	1
o-Xylene	ND		0.50	0.12	ug/L			08/06/19 14:22	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/06/19 14:22	1
Styrene	ND		0.50	0.13	ug/L			08/06/19 14:22	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/06/19 14:22	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/06/19 14:22	1
Toluene	ND		0.50	0.10	ug/L			08/06/19 14:22	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/06/19 14:22	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/06/19 14:22	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/06/19 14:22	1
<b>Trichloroethene</b>	<b>5.2</b>		0.50	0.18	ug/L			08/06/19 14:22	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/06/19 14:22	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/06/19 14:22	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	1.3	TJ	ug/L		3.14			08/06/19 14:22	1
Ethyl Acetate	10	TJN	ug/L		4.48	141-78-6		08/06/19 14:22	1
Furan, tetrahydro-	2.0	TJN	ug/L		4.66	109-99-9		08/06/19 14:22	1
Unknown	6.6	TJ	ug/L		9.76			08/06/19 14:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	115		80 - 120		08/06/19 14:22	1
4-Bromofluorobenzene (Surr)	94		80 - 120		08/06/19 14:22	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-CCA-MW-3-080119**

**Lab Sample ID: 480-157112-11**

Date Collected: 08/01/19 15:10

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/06/19 14:46	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/06/19 14:46	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/06/19 14:46	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/06/19 14:46	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/06/19 14:46	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/06/19 14:46	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/06/19 14:46	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 14:46	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/06/19 14:46	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 14:46	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/06/19 14:46	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 14:46	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/06/19 14:46	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/06/19 14:46	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/06/19 14:46	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 14:46	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/06/19 14:46	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 14:46	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/06/19 14:46	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/06/19 14:46	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/06/19 14:46	1
2-Hexanone	ND		5.0	1.0	ug/L			08/06/19 14:46	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/06/19 14:46	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/06/19 14:46	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/06/19 14:46	1
Acetone	ND		5.0	1.0	ug/L			08/06/19 14:46	1
Acrylonitrile	ND		10	2.2	ug/L			08/06/19 14:46	1
Allyl chloride	ND		0.50	0.22	ug/L			08/06/19 14:46	1
Benzene	ND		0.50	0.13	ug/L			08/06/19 14:46	1
Bromobenzene	ND		0.50	0.13	ug/L			08/06/19 14:46	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/06/19 14:46	1
Bromoform	ND		0.50	0.13	ug/L			08/06/19 14:46	1
Bromomethane	ND		0.50	0.23	ug/L			08/06/19 14:46	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/06/19 14:46	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/06/19 14:46	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/06/19 14:46	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/06/19 14:46	1
Chloroethane	ND		0.50	0.20	ug/L			08/06/19 14:46	1
Chloroform	ND		0.50	0.14	ug/L			08/06/19 14:46	1
Chloromethane	ND		0.50	0.17	ug/L			08/06/19 14:46	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/06/19 14:46	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/06/19 14:46	1
Dibromomethane	ND		0.50	0.17	ug/L			08/06/19 14:46	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/06/19 14:46	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/06/19 14:46	1
Ethyl ether	ND		0.50	0.12	ug/L			08/06/19 14:46	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/06/19 14:46	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/06/19 14:46	1
Iodomethane	ND		0.50	0.15	ug/L			08/06/19 14:46	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-CCA-MW-3-080119**

**Lab Sample ID: 480-157112-11**

Date Collected: 08/01/19 15:10

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/06/19 14:46	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/06/19 14:46	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/06/19 14:46	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/06/19 14:46	1
Naphthalene	ND		0.50	0.15	ug/L			08/06/19 14:46	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/06/19 14:46	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/06/19 14:46	1
o-Xylene	ND		0.50	0.12	ug/L			08/06/19 14:46	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/06/19 14:46	1
Styrene	ND		0.50	0.13	ug/L			08/06/19 14:46	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/06/19 14:46	1
<b>Tetrachloroethene</b>	<b>0.25</b>	<b>J</b>	0.50	0.20	ug/L			08/06/19 14:46	1
Toluene	ND		0.50	0.10	ug/L			08/06/19 14:46	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/06/19 14:46	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/06/19 14:46	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/06/19 14:46	1
<b>Trichloroethene</b>	<b>9.6</b>		0.50	0.18	ug/L			08/06/19 14:46	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/06/19 14:46	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/06/19 14:46	1
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Unknown	0.62	TJ	ug/L		9.76			08/06/19 14:46	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichlorobenzene-d4	109		80 - 120					08/06/19 14:46	1
4-Bromofluorobenzene (Surr)	89		80 - 120					08/06/19 14:46	1

**Method: RSK-175 - Dissolved Gases (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			08/05/19 15:18	1
Ethane	ND		7.5	1.5	ug/L			08/05/19 15:18	1
Ethene	ND		7.0	1.5	ug/L			08/05/19 15:18	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>22.5</b>		0.50	0.28	mg/L			08/06/19 14:37	1
<b>Sulfate</b>	<b>13.4</b>		2.0	0.35	mg/L			08/06/19 14:37	1
<b>Nitrate as N</b>	<b>0.70</b>	<b>H</b>	0.050	0.020	mg/L			08/05/19 13:24	1
<b>Nitrate Nitrite as N</b>	<b>0.70</b>		0.050	0.020	mg/L			08/02/19 19:08	1
Nitrite as N	ND	H	0.050	0.020	mg/L			08/05/19 13:24	1
<b>Alkalinity, Total</b>	<b>177</b>		5.0	0.79	mg/L			08/10/19 02:16	1
<b>Alkalinity, Bicarbonate</b>	<b>177</b>		5.0	0.79	mg/L			08/10/19 02:16	1
Alkalinity, Carbonate	ND		5.0	0.79	mg/L			08/10/19 02:16	1
Hydroxide Alkalinity	ND		5.0	0.79	mg/L			08/10/19 02:16	1
Sulfide	ND		1.0	0.67	mg/L			08/07/19 15:10	1
<b>Total Organic Carbon</b>	<b>0.44</b>	<b>J</b>	1.0	0.43	mg/L			08/11/19 02:01	1

**General Chemistry - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferrous Iron, Dissolved	ND	HF F1	0.10	0.075	mg/L			08/13/19 13:25	1

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-CCA-MW-8-PDB-080119**

**Lab Sample ID: 480-157112-12**

Date Collected: 08/01/19 15:45

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/06/19 15:11	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/06/19 15:11	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/06/19 15:11	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/06/19 15:11	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/06/19 15:11	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/06/19 15:11	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/06/19 15:11	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 15:11	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/06/19 15:11	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 15:11	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/06/19 15:11	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 15:11	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/06/19 15:11	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/06/19 15:11	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/06/19 15:11	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 15:11	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/06/19 15:11	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 15:11	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/06/19 15:11	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/06/19 15:11	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/06/19 15:11	1
2-Hexanone	ND		5.0	1.0	ug/L			08/06/19 15:11	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/06/19 15:11	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/06/19 15:11	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/06/19 15:11	1
<b>Acetone</b>	<b>59</b>		5.0	1.0	ug/L			08/06/19 15:11	1
Acrylonitrile	ND		10	2.2	ug/L			08/06/19 15:11	1
Allyl chloride	ND		0.50	0.22	ug/L			08/06/19 15:11	1
Benzene	ND		0.50	0.13	ug/L			08/06/19 15:11	1
Bromobenzene	ND		0.50	0.13	ug/L			08/06/19 15:11	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/06/19 15:11	1
Bromoform	ND		0.50	0.13	ug/L			08/06/19 15:11	1
Bromomethane	ND		0.50	0.23	ug/L			08/06/19 15:11	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/06/19 15:11	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/06/19 15:11	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/06/19 15:11	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/06/19 15:11	1
Chloroethane	ND		0.50	0.20	ug/L			08/06/19 15:11	1
Chloroform	ND		0.50	0.14	ug/L			08/06/19 15:11	1
Chloromethane	ND		0.50	0.17	ug/L			08/06/19 15:11	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/06/19 15:11	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/06/19 15:11	1
Dibromomethane	ND		0.50	0.17	ug/L			08/06/19 15:11	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/06/19 15:11	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/06/19 15:11	1
Ethyl ether	ND		0.50	0.12	ug/L			08/06/19 15:11	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/06/19 15:11	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/06/19 15:11	1
Iodomethane	ND		0.50	0.15	ug/L			08/06/19 15:11	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-CCA-MW-8-PDB-080119**

**Lab Sample ID: 480-157112-12**

Date Collected: 08/01/19 15:45

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/06/19 15:11	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/06/19 15:11	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/06/19 15:11	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/06/19 15:11	1
Naphthalene	ND		0.50	0.15	ug/L			08/06/19 15:11	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/06/19 15:11	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/06/19 15:11	1
o-Xylene	ND		0.50	0.12	ug/L			08/06/19 15:11	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/06/19 15:11	1
Styrene	ND		0.50	0.13	ug/L			08/06/19 15:11	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/06/19 15:11	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/06/19 15:11	1
Toluene	ND		0.50	0.10	ug/L			08/06/19 15:11	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/06/19 15:11	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/06/19 15:11	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/06/19 15:11	1
Trichloroethene	ND		0.50	0.18	ug/L			08/06/19 15:11	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/06/19 15:11	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/06/19 15:11	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	14	TJ	ug/L		4.48			08/06/19 15:11	1
Furan, tetrahydro-	2.2	TJN	ug/L		4.66	109-99-9		08/06/19 15:11	1
Unknown	6.9	TJ	ug/L		9.76			08/06/19 15:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	116		80 - 120		08/06/19 15:11	1
4-Bromofluorobenzene (Surr)	91		80 - 120		08/06/19 15:11	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-CCA-MW-1-PDB-080119**

**Lab Sample ID: 480-157112-13**

Date Collected: 08/01/19 15:55

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/06/19 15:36	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/06/19 15:36	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/06/19 15:36	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/06/19 15:36	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/06/19 15:36	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/06/19 15:36	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/06/19 15:36	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 15:36	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/06/19 15:36	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 15:36	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/06/19 15:36	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 15:36	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/06/19 15:36	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/06/19 15:36	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/06/19 15:36	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 15:36	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/06/19 15:36	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 15:36	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/06/19 15:36	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/06/19 15:36	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/06/19 15:36	1
2-Hexanone	ND		5.0	1.0	ug/L			08/06/19 15:36	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/06/19 15:36	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/06/19 15:36	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/06/19 15:36	1
<b>Acetone</b>	<b>22</b>		5.0	1.0	ug/L			08/06/19 15:36	1
Acrylonitrile	ND		10	2.2	ug/L			08/06/19 15:36	1
Allyl chloride	ND		0.50	0.22	ug/L			08/06/19 15:36	1
Benzene	ND		0.50	0.13	ug/L			08/06/19 15:36	1
Bromobenzene	ND		0.50	0.13	ug/L			08/06/19 15:36	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/06/19 15:36	1
Bromoform	ND		0.50	0.13	ug/L			08/06/19 15:36	1
Bromomethane	ND		0.50	0.23	ug/L			08/06/19 15:36	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/06/19 15:36	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/06/19 15:36	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/06/19 15:36	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/06/19 15:36	1
Chloroethane	ND		0.50	0.20	ug/L			08/06/19 15:36	1
Chloroform	ND		0.50	0.14	ug/L			08/06/19 15:36	1
Chloromethane	ND		0.50	0.17	ug/L			08/06/19 15:36	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/06/19 15:36	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/06/19 15:36	1
Dibromomethane	ND		0.50	0.17	ug/L			08/06/19 15:36	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/06/19 15:36	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/06/19 15:36	1
Ethyl ether	ND		0.50	0.12	ug/L			08/06/19 15:36	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/06/19 15:36	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/06/19 15:36	1
Iodomethane	ND		0.50	0.15	ug/L			08/06/19 15:36	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-CCA-MW-1-PDB-080119**

**Lab Sample ID: 480-157112-13**

Date Collected: 08/01/19 15:55

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/06/19 15:36	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/06/19 15:36	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/06/19 15:36	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/06/19 15:36	1
Naphthalene	ND		0.50	0.15	ug/L			08/06/19 15:36	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/06/19 15:36	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/06/19 15:36	1
o-Xylene	ND		0.50	0.12	ug/L			08/06/19 15:36	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/06/19 15:36	1
Styrene	ND		0.50	0.13	ug/L			08/06/19 15:36	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/06/19 15:36	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/06/19 15:36	1
Toluene	ND		0.50	0.10	ug/L			08/06/19 15:36	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/06/19 15:36	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/06/19 15:36	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/06/19 15:36	1
<b>Trichloroethene</b>	<b>2.1</b>		0.50	0.18	ug/L			08/06/19 15:36	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/06/19 15:36	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/06/19 15:36	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	7.8	TJ	ug/L		3.13			08/06/19 15:36	1
Ethyl Acetate	11	TJN	ug/L		4.48	141-78-6		08/06/19 15:36	1
Furan, tetrahydro-	1.7	TJN	ug/L		4.66	109-99-9		08/06/19 15:36	1
Unknown	4.6	TJ	ug/L		9.76			08/06/19 15:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	114		80 - 120		08/06/19 15:36	1
4-Bromofluorobenzene (Surr)	91		80 - 120		08/06/19 15:36	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: TRIP BLANK-080119**

**Lab Sample ID: 480-157112-14**

Date Collected: 08/01/19 00:00

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/06/19 16:01	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/06/19 16:01	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/06/19 16:01	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/06/19 16:01	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/06/19 16:01	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/06/19 16:01	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/06/19 16:01	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 16:01	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/06/19 16:01	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 16:01	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/06/19 16:01	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 16:01	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/06/19 16:01	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/06/19 16:01	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/06/19 16:01	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 16:01	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/06/19 16:01	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 16:01	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/06/19 16:01	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/06/19 16:01	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/06/19 16:01	1
2-Hexanone	ND		5.0	1.0	ug/L			08/06/19 16:01	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/06/19 16:01	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/06/19 16:01	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/06/19 16:01	1
Acetone	ND		5.0	1.0	ug/L			08/06/19 16:01	1
Acrylonitrile	ND		10	2.2	ug/L			08/06/19 16:01	1
Allyl chloride	ND		0.50	0.22	ug/L			08/06/19 16:01	1
Benzene	ND		0.50	0.13	ug/L			08/06/19 16:01	1
Bromobenzene	ND		0.50	0.13	ug/L			08/06/19 16:01	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/06/19 16:01	1
Bromoform	ND		0.50	0.13	ug/L			08/06/19 16:01	1
Bromomethane	ND		0.50	0.23	ug/L			08/06/19 16:01	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/06/19 16:01	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/06/19 16:01	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/06/19 16:01	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/06/19 16:01	1
Chloroethane	ND		0.50	0.20	ug/L			08/06/19 16:01	1
Chloroform	ND		0.50	0.14	ug/L			08/06/19 16:01	1
Chloromethane	ND		0.50	0.17	ug/L			08/06/19 16:01	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/06/19 16:01	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/06/19 16:01	1
Dibromomethane	ND		0.50	0.17	ug/L			08/06/19 16:01	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/06/19 16:01	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/06/19 16:01	1
Ethyl ether	ND		0.50	0.12	ug/L			08/06/19 16:01	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/06/19 16:01	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/06/19 16:01	1
Iodomethane	ND		0.50	0.15	ug/L			08/06/19 16:01	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: TRIP BLANK-080119**

**Lab Sample ID: 480-157112-14**

Date Collected: 08/01/19 00:00

Matrix: Water

Date Received: 08/01/19 18:15

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/06/19 16:01	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/06/19 16:01	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/06/19 16:01	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/06/19 16:01	1
Naphthalene	ND		0.50	0.15	ug/L			08/06/19 16:01	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/06/19 16:01	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/06/19 16:01	1
o-Xylene	ND		0.50	0.12	ug/L			08/06/19 16:01	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/06/19 16:01	1
Styrene	ND		0.50	0.13	ug/L			08/06/19 16:01	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/06/19 16:01	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/06/19 16:01	1
Toluene	ND		0.50	0.10	ug/L			08/06/19 16:01	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/06/19 16:01	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/06/19 16:01	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/06/19 16:01	1
Trichloroethene	ND		0.50	0.18	ug/L			08/06/19 16:01	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/06/19 16:01	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/06/19 16:01	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/06/19 16:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	108		80 - 120		08/06/19 16:01	1
4-Bromofluorobenzene (Surr)	91		80 - 120		08/06/19 16:01	1

# Surrogate Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCZ (80-120)	BFB (80-120)
480-157112-1	LVRA-BIA-MW-2-PDB-080119	113	90
480-157112-2	LVRA-BIA-MW-2-080119	106	94
480-157112-3	LVRA-BIA-MW-5-PDB-080119	114	91
480-157112-4	LVRA-BIA-MW-6-PDB-080119	113	90
480-157112-4 - DL	LVRA-BIA-MW-6-PDB-080119	105	90
480-157112-5	LVRA-BIA-MW-D1-PDB-080119	114	90
480-157112-6	LVRA-BIA-MW-3-PDB-080119	112	91
480-157112-7	LVRA-GTA-LV8-PDB-080119	110	90
480-157112-8	LVRA-GTA-PZ27-PDB-080119	112	91
480-157112-9	LVRA-GTA-PZ28D-PDB-080119	116	89
480-157112-10	LVRA-CCA-MW-3-PDB-080119	115	94
480-157112-11	LVRA-CCA-MW-3-080119	109	89
480-157112-12	LVRA-CCA-MW-8-PDB-080119	116	91
480-157112-13	LVRA-CCA-MW-1-PDB-080119	114	91
480-157112-14	TRIP BLANK-080119	108	91
LCS 480-485271/4	Lab Control Sample	100	100
LCS 480-485481/5	Lab Control Sample	101	100
LCSD 480-485271/5	Lab Control Sample Dup	99	101
LLCS 480-485271/6	Lab Control Sample	101	98
LLCS 480-485481/6	Lab Control Sample	102	92
MB 480-485271/7	Method Blank	103	92
MB 480-485481/7	Method Blank	108	91

### Surrogate Legend

DCZ = 1,2-Dichlorobenzene-d4

BFB = 4-Bromofluorobenzene (Surr)

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-485271/7

Matrix: Water

Analysis Batch: 485271

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/05/19 08:30	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/05/19 08:30	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/05/19 08:30	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/05/19 08:30	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/05/19 08:30	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/05/19 08:30	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/05/19 08:30	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 08:30	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/05/19 08:30	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 08:30	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/05/19 08:30	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/05/19 08:30	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/05/19 08:30	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/05/19 08:30	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/05/19 08:30	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 08:30	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/05/19 08:30	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/05/19 08:30	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/05/19 08:30	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/05/19 08:30	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/05/19 08:30	1
2-Hexanone	ND		5.0	1.0	ug/L			08/05/19 08:30	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/05/19 08:30	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/05/19 08:30	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/05/19 08:30	1
Acetone	ND		5.0	1.0	ug/L			08/05/19 08:30	1
Acrylonitrile	ND		10	2.2	ug/L			08/05/19 08:30	1
Allyl chloride	ND		0.50	0.22	ug/L			08/05/19 08:30	1
Benzene	ND		0.50	0.13	ug/L			08/05/19 08:30	1
Bromobenzene	ND		0.50	0.13	ug/L			08/05/19 08:30	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/05/19 08:30	1
Bromoform	ND		0.50	0.13	ug/L			08/05/19 08:30	1
Bromomethane	ND		0.50	0.23	ug/L			08/05/19 08:30	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/05/19 08:30	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/05/19 08:30	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/05/19 08:30	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/05/19 08:30	1
Chloroethane	ND		0.50	0.20	ug/L			08/05/19 08:30	1
Chloroform	ND		0.50	0.14	ug/L			08/05/19 08:30	1
Chloromethane	ND		0.50	0.17	ug/L			08/05/19 08:30	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/05/19 08:30	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/05/19 08:30	1
Dibromomethane	ND		0.50	0.17	ug/L			08/05/19 08:30	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/05/19 08:30	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/05/19 08:30	1
Ethyl ether	ND		0.50	0.12	ug/L			08/05/19 08:30	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/05/19 08:30	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/05/19 08:30	1

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-485271/7

Matrix: Water

Analysis Batch: 485271

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Iodomethane	ND		0.50	0.15	ug/L			08/05/19 08:30	1
Isopropylbenzene	ND		0.50	0.16	ug/L			08/05/19 08:30	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/05/19 08:30	1
Methylene Chloride	ND		2.5	0.99	ug/L			08/05/19 08:30	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/05/19 08:30	1
Naphthalene	ND		0.50	0.15	ug/L			08/05/19 08:30	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/05/19 08:30	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/05/19 08:30	1
o-Xylene	ND		0.50	0.12	ug/L			08/05/19 08:30	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/05/19 08:30	1
Styrene	ND		0.50	0.13	ug/L			08/05/19 08:30	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/05/19 08:30	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/05/19 08:30	1
Toluene	ND		0.50	0.10	ug/L			08/05/19 08:30	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/05/19 08:30	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/05/19 08:30	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/05/19 08:30	1
Trichloroethene	ND		0.50	0.18	ug/L			08/05/19 08:30	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/05/19 08:30	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/05/19 08:30	1

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Tentatively Identified Compound	None		ug/L					08/05/19 08:30	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichlorobenzene-d4	103		80 - 120		08/05/19 08:30	1
4-Bromofluorobenzene (Surr)	92		80 - 120		08/05/19 08:30	1

Lab Sample ID: LCS 480-485271/4

Matrix: Water

Analysis Batch: 485271

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	4.00	4.21		ug/L		105	70 - 130
1,1,2,2-Tetrachloroethane	4.00	3.96		ug/L		99	70 - 130
1,1,2-Trichloroethane	4.00	4.07		ug/L		102	70 - 130
1,1-Dichloroethane	4.00	3.90		ug/L		98	70 - 130
1,1-Dichloroethane	4.00	4.03		ug/L		101	70 - 130
1,1-Dichloropropene	4.00	3.79		ug/L		95	70 - 130
1,2,3-Trichlorobenzene	4.00	3.77		ug/L		94	70 - 130
1,2,3-Trichloropropane	4.00	3.91		ug/L		98	70 - 130
1,2,4-Trichlorobenzene	4.00	3.68		ug/L		92	70 - 130
1,2,4-Trimethylbenzene	4.00	3.76		ug/L		94	70 - 130
1,2-Dichlorobenzene	4.00	3.71		ug/L		93	70 - 130
1,2-Dichloroethane	4.00	3.93		ug/L		98	70 - 130
1,2-Dichloropropane	4.00	3.91		ug/L		98	70 - 130
1,3,5-Trimethylbenzene	4.00	3.74		ug/L		93	70 - 130

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-485271/4

Matrix: Water

Analysis Batch: 485271

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	4.00	3.85		ug/L		96	70 - 130
1,3-Dichloropropane	4.00	3.86		ug/L		97	70 - 130
1,4-Dichlorobenzene	4.00	3.84		ug/L		96	70 - 130
2,2-Dichloropropane	4.00	3.96		ug/L		99	70 - 130
2-Butanone (MEK)	20.0	21.9		ug/L		109	70 - 130
2-Chlorotoluene	4.00	3.68		ug/L		92	70 - 130
2-Hexanone	20.0	19.7		ug/L		99	70 - 130
4-Chlorotoluene	4.00	3.88		ug/L		97	70 - 130
4-Isopropyltoluene	4.00	3.65		ug/L		91	70 - 130
4-Methyl-2-pentanone (MIBK)	20.0	20.0		ug/L		100	70 - 130
Acetone	20.0	26.0		ug/L		130	70 - 130
Benzene	4.00	3.73		ug/L		93	70 - 130
Bromobenzene	4.00	3.75		ug/L		94	70 - 130
Bromochloromethane	4.00	3.93		ug/L		98	70 - 130
Bromoform	4.00	4.22		ug/L		106	70 - 130
Bromomethane	4.00	3.70		ug/L		92	70 - 130
Carbon disulfide	4.00	4.05		ug/L		101	70 - 130
Carbon tetrachloride	4.00	4.62		ug/L		115	70 - 130
Chlorobenzene	4.00	3.81		ug/L		95	70 - 130
Chlorodibromomethane	4.00	4.07		ug/L		102	70 - 130
Chloroethane	4.00	3.91		ug/L		98	70 - 130
Chloroform	4.00	3.82		ug/L		95	70 - 130
Chloromethane	4.00	4.44		ug/L		111	70 - 130
cis-1,2-Dichloroethene	4.00	4.05		ug/L		101	70 - 130
cis-1,3-Dichloropropene	4.00	3.79		ug/L		95	70 - 130
Dibromomethane	4.00	4.01		ug/L		100	70 - 130
Dichlorobromomethane	4.00	4.11		ug/L		103	70 - 130
Dichlorodifluoromethane	4.00	4.42		ug/L		110	70 - 130
Ethylbenzene	4.00	3.70		ug/L		92	70 - 130
Hexachlorobutadiene	4.00	3.91		ug/L		98	70 - 130
Isopropylbenzene	4.00	3.72		ug/L		93	70 - 130
Methyl tert-butyl ether	4.00	3.93		ug/L		98	70 - 130
Methylene Chloride	4.00	4.12		ug/L		103	70 - 130
Naphthalene	4.00	3.55		ug/L		89	70 - 130
n-Butylbenzene	4.00	3.56		ug/L		89	70 - 130
N-Propylbenzene	4.00	3.66		ug/L		91	70 - 130
sec-Butylbenzene	4.00	3.67		ug/L		92	70 - 130
Styrene	4.00	3.79		ug/L		95	70 - 130
tert-Butylbenzene	4.00	3.60		ug/L		90	70 - 130
Tetrachloroethene	4.00	3.89		ug/L		97	70 - 130
Toluene	4.00	3.77		ug/L		94	70 - 130
trans-1,2-Dichloroethene	4.00	4.00		ug/L		100	70 - 130
trans-1,3-Dichloropropene	4.00	3.66		ug/L		91	70 - 130
Trichloroethene	4.00	3.84		ug/L		96	70 - 130
Trichlorofluoromethane	4.00	4.35		ug/L		109	70 - 130
Vinyl chloride	4.00	4.20		ug/L		105	70 - 130

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-485271/4

Matrix: Water

Analysis Batch: 485271

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichlorobenzene-d4	100		80 - 120
4-Bromofluorobenzene (Surr)	100		80 - 120

Lab Sample ID: LCSD 480-485271/5

Matrix: Water

Analysis Batch: 485271

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	4.00	4.26		ug/L		107	70 - 130	6	20
1,1,1-Trichloroethane	4.00	4.26		ug/L		107	70 - 130	1	20
1,1,2,2-Tetrachloroethane	4.00	3.99		ug/L		100	70 - 130	1	20
1,1,2-Trichloroethane	4.00	4.18		ug/L		105	70 - 130	3	20
1,1-Dichloroethane	4.00	3.96		ug/L		99	70 - 130	1	20
1,1-Dichloroethane	4.00	4.15		ug/L		104	70 - 130	3	20
1,1-Dichloropropene	4.00	3.83		ug/L		96	70 - 130	1	20
1,2,3-Trichlorobenzene	4.00	3.87		ug/L		97	70 - 130	3	20
1,2,3-Trichloropropane	4.00	4.13		ug/L		103	70 - 130	5	20
1,2,4-Trichlorobenzene	4.00	3.68		ug/L		92	70 - 130	0	20
1,2,4-Trimethylbenzene	4.00	3.90		ug/L		98	70 - 130	4	20
1,2-Dichlorobenzene	4.00	3.82		ug/L		95	70 - 130	3	20
1,2-Dichloroethane	4.00	4.01		ug/L		100	70 - 130	2	20
1,2-Dichloropropane	4.00	4.05		ug/L		101	70 - 130	4	20
1,3,5-Trimethylbenzene	4.00	3.90		ug/L		98	70 - 130	4	20
1,3-Dichlorobenzene	4.00	3.94		ug/L		98	70 - 130	2	20
1,3-Dichloropropane	4.00	4.07		ug/L		102	70 - 130	5	20
1,4-Dichlorobenzene	4.00	3.98		ug/L		100	70 - 130	4	20
2,2-Dichloropropane	4.00	4.21		ug/L		105	70 - 130	6	20
2-Butanone (MEK)	20.0	20.5		ug/L		103	70 - 130	6	20
2-Chlorotoluene	4.00	3.87		ug/L		97	70 - 130	5	20
2-Hexanone	20.0	19.8		ug/L		99	70 - 130	0	20
4-Chlorotoluene	4.00	3.93		ug/L		98	70 - 130	1	20
4-Isopropyltoluene	4.00	3.87		ug/L		97	70 - 130	6	20
4-Methyl-2-pentanone (MIBK)	20.0	19.5		ug/L		98	70 - 130	3	20
Acetone	20.0	23.2		ug/L		116	70 - 130	11	20
Benzene	4.00	3.85		ug/L		96	70 - 130	3	20
Bromobenzene	4.00	3.92		ug/L		98	70 - 130	4	20
Bromochloromethane	4.00	3.91		ug/L		98	70 - 130	0	20
Bromoform	4.00	4.31		ug/L		108	70 - 130	2	20
Bromomethane	4.00	3.94		ug/L		98	70 - 130	6	20
Carbon disulfide	4.00	4.32		ug/L		108	70 - 130	6	20
Carbon tetrachloride	4.00	4.75		ug/L		119	70 - 130	3	20
Chlorobenzene	4.00	4.10		ug/L		103	70 - 130	7	20
Chlorodibromomethane	4.00	4.27		ug/L		107	70 - 130	5	20
Chloroethane	4.00	4.09		ug/L		102	70 - 130	5	20
Chloroform	4.00	3.89		ug/L		97	70 - 130	2	20
Chloromethane	4.00	4.25		ug/L		106	70 - 130	4	20
cis-1,2-Dichloroethene	4.00	4.09		ug/L		102	70 - 130	1	20
cis-1,3-Dichloropropene	4.00	3.89		ug/L		97	70 - 130	3	20

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-485271/5

Matrix: Water

Analysis Batch: 485271

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromomethane	4.00	4.07		ug/L		102	70 - 130	2	20
Dichlorobromomethane	4.00	4.20		ug/L		105	70 - 130	2	20
Dichlorodifluoromethane	4.00	4.49		ug/L		112	70 - 130	2	20
Ethylbenzene	4.00	3.97		ug/L		99	70 - 130	7	20
Hexachlorobutadiene	4.00	3.93		ug/L		98	70 - 130	1	20
Isopropylbenzene	4.00	3.99		ug/L		100	70 - 130	7	20
Methyl tert-butyl ether	4.00	3.95		ug/L		99	70 - 130	1	20
Methylene Chloride	4.00	4.25		ug/L		106	70 - 130	3	20
Naphthalene	4.00	3.56		ug/L		89	70 - 130	0	20
n-Butylbenzene	4.00	3.69		ug/L		92	70 - 130	4	20
N-Propylbenzene	4.00	3.86		ug/L		97	70 - 130	5	20
sec-Butylbenzene	4.00	3.80		ug/L		95	70 - 130	4	20
Styrene	4.00	4.03		ug/L		101	70 - 130	6	20
tert-Butylbenzene	4.00	3.75		ug/L		94	70 - 130	4	20
Tetrachloroethene	4.00	4.11		ug/L		103	70 - 130	5	20
Toluene	4.00	3.96		ug/L		99	70 - 130	5	20
trans-1,2-Dichloroethene	4.00	4.05		ug/L		101	70 - 130	1	20
trans-1,3-Dichloropropene	4.00	3.74		ug/L		93	70 - 130	2	20
Trichloroethene	4.00	4.07		ug/L		102	70 - 130	6	20
Trichlorofluoromethane	4.00	4.42		ug/L		111	70 - 130	2	20
Vinyl chloride	4.00	4.16		ug/L		104	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichlorobenzene-d4	99		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120

Lab Sample ID: LLCS 480-485271/6

Matrix: Water

Analysis Batch: 485271

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	0.500	0.546		ug/L		109	50 - 150
1,1,1-Trichloroethane	0.500	0.592		ug/L		118	50 - 150
1,1,2,2-Tetrachloroethane	0.500	0.563		ug/L		113	50 - 150
1,1,2-Trichloroethane	0.500	0.562		ug/L		112	50 - 150
1,1-Dichloroethane	0.500	0.562		ug/L		112	50 - 150
1,1-Dichloroethene	0.500	0.576		ug/L		115	50 - 150
1,1-Dichloropropene	0.500	0.585		ug/L		117	50 - 150
1,2,3-Trichlorobenzene	0.500	0.562		ug/L		112	50 - 150
1,2,3-Trichloropropane	0.500	0.552		ug/L		110	50 - 150
1,2,4-Trichlorobenzene	0.500	0.518		ug/L		104	50 - 150
1,2,4-Trimethylbenzene	0.500	0.500		ug/L		100	50 - 150
1,2-Dichlorobenzene	0.500	0.578		ug/L		116	50 - 150
1,2-Dichloroethane	0.500	0.565		ug/L		113	50 - 150
1,2-Dichloropropane	0.500	0.546		ug/L		109	50 - 150
1,3,5-Trimethylbenzene	0.500	0.474	J	ug/L		95	50 - 150
1,3-Dichlorobenzene	0.500	0.571		ug/L		114	50 - 150
1,3-Dichloropropane	0.500	0.555		ug/L		111	50 - 150

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LLCS 480-485271/6

Matrix: Water

Analysis Batch: 485271

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.500	0.582		ug/L		116	50 - 150
2,2-Dichloropropane	0.500	0.636		ug/L		127	50 - 150
2-Butanone (MEK)	2.50	3.12	J	ug/L		125	50 - 150
2-Chlorotoluene	0.500	0.522		ug/L		104	50 - 150
2-Hexanone	2.50	2.56	J	ug/L		103	50 - 150
4-Chlorotoluene	0.500	0.523		ug/L		105	50 - 150
4-Isopropyltoluene	0.500	0.476	J	ug/L		95	50 - 150
4-Methyl-2-pentanone (MIBK)	2.50	2.52	J	ug/L		101	50 - 150
Acetone	2.50	3.62	J	ug/L		145	50 - 150
Benzene	0.500	0.588		ug/L		118	50 - 150
Bromobenzene	0.500	0.561		ug/L		112	50 - 150
Bromochloromethane	0.500	0.547		ug/L		109	50 - 150
Bromoform	0.500	0.558		ug/L		112	50 - 150
Bromomethane	0.500	0.489	J	ug/L		98	50 - 150
Carbon disulfide	0.500	0.560		ug/L		112	50 - 150
Carbon tetrachloride	0.500	0.645		ug/L		129	50 - 150
Chlorobenzene	0.500	0.557		ug/L		111	50 - 150
Chlorodibromomethane	0.500	0.565		ug/L		113	50 - 150
Chloroethane	0.500	0.511		ug/L		102	50 - 150
Chloroform	0.500	0.597		ug/L		119	50 - 150
Chloromethane	0.500	0.477	J	ug/L		95	50 - 150
cis-1,2-Dichloroethene	0.500	0.562		ug/L		112	50 - 150
cis-1,3-Dichloropropene	0.500	0.476	J	ug/L		95	50 - 150
Dibromomethane	0.500	0.578		ug/L		116	50 - 150
Dichlorobromomethane	0.500	0.565		ug/L		113	50 - 150
Dichlorodifluoromethane	0.500	0.460	J	ug/L		92	50 - 150
Ethylbenzene	0.500	0.527		ug/L		105	50 - 150
Hexachlorobutadiene	0.500	0.580		ug/L		116	50 - 150
Isopropylbenzene	0.500	0.510		ug/L		102	50 - 150
Methyl tert-butyl ether	0.500	0.533		ug/L		107	50 - 150
Methylene Chloride	0.500	ND	*	ug/L		190	50 - 150
Naphthalene	0.500	0.470	J	ug/L		94	50 - 150
n-Butylbenzene	0.500	0.483	J	ug/L		97	50 - 150
N-Propylbenzene	0.500	0.504		ug/L		101	50 - 150
sec-Butylbenzene	0.500	0.493	J	ug/L		99	50 - 150
Styrene	0.500	0.493	J	ug/L		99	50 - 150
tert-Butylbenzene	0.500	0.510		ug/L		102	50 - 150
Tetrachloroethene	0.500	0.606		ug/L		121	50 - 150
Toluene	0.500	0.548		ug/L		110	50 - 150
trans-1,2-Dichloroethene	0.500	0.591		ug/L		118	50 - 150
trans-1,3-Dichloropropene	0.500	0.433	J	ug/L		87	50 - 150
Trichloroethene	0.500	0.550		ug/L		110	50 - 150
Trichlorofluoromethane	0.500	0.449	J	ug/L		90	50 - 150
Vinyl chloride	0.500	0.526		ug/L		105	50 - 150

Surrogate	LLCS LLCS		Limits
	%Recovery	Qualifier	
1,2-Dichlorobenzene-d4	101		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-485481/7

Matrix: Water

Analysis Batch: 485481

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/06/19 08:15	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/06/19 08:15	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/06/19 08:15	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/06/19 08:15	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/06/19 08:15	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/06/19 08:15	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/06/19 08:15	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 08:15	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/06/19 08:15	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 08:15	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/06/19 08:15	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/06/19 08:15	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/06/19 08:15	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/06/19 08:15	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/06/19 08:15	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 08:15	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/06/19 08:15	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/06/19 08:15	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/06/19 08:15	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/06/19 08:15	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/06/19 08:15	1
2-Hexanone	ND		5.0	1.0	ug/L			08/06/19 08:15	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/06/19 08:15	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/06/19 08:15	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/06/19 08:15	1
Acetone	ND		5.0	1.0	ug/L			08/06/19 08:15	1
Acrylonitrile	ND		10	2.2	ug/L			08/06/19 08:15	1
Allyl chloride	ND		0.50	0.22	ug/L			08/06/19 08:15	1
Benzene	ND		0.50	0.13	ug/L			08/06/19 08:15	1
Bromobenzene	ND		0.50	0.13	ug/L			08/06/19 08:15	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/06/19 08:15	1
Bromoform	ND		0.50	0.13	ug/L			08/06/19 08:15	1
Bromomethane	ND		0.50	0.23	ug/L			08/06/19 08:15	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/06/19 08:15	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/06/19 08:15	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/06/19 08:15	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/06/19 08:15	1
Chloroethane	ND		0.50	0.20	ug/L			08/06/19 08:15	1
Chloroform	ND		0.50	0.14	ug/L			08/06/19 08:15	1
Chloromethane	ND		0.50	0.17	ug/L			08/06/19 08:15	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/06/19 08:15	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/06/19 08:15	1
Dibromomethane	ND		0.50	0.17	ug/L			08/06/19 08:15	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/06/19 08:15	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/06/19 08:15	1
Ethyl ether	ND		0.50	0.12	ug/L			08/06/19 08:15	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/06/19 08:15	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/06/19 08:15	1

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-485481/7

Matrix: Water

Analysis Batch: 485481

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Iodomethane	ND		0.50	0.15	ug/L			08/06/19 08:15	1
Isopropylbenzene	ND		0.50	0.16	ug/L			08/06/19 08:15	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/06/19 08:15	1
Methylene Chloride	ND		2.5	0.99	ug/L			08/06/19 08:15	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/06/19 08:15	1
Naphthalene	ND		0.50	0.15	ug/L			08/06/19 08:15	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/06/19 08:15	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/06/19 08:15	1
o-Xylene	ND		0.50	0.12	ug/L			08/06/19 08:15	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/06/19 08:15	1
Styrene	ND		0.50	0.13	ug/L			08/06/19 08:15	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/06/19 08:15	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/06/19 08:15	1
Toluene	ND		0.50	0.10	ug/L			08/06/19 08:15	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/06/19 08:15	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/06/19 08:15	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/06/19 08:15	1
Trichloroethene	ND		0.50	0.18	ug/L			08/06/19 08:15	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/06/19 08:15	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/06/19 08:15	1

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Tentatively Identified Compound	None		ug/L					08/06/19 08:15	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichlorobenzene-d4	108		80 - 120		08/06/19 08:15	1
4-Bromofluorobenzene (Surr)	91		80 - 120		08/06/19 08:15	1

Lab Sample ID: LCS 480-485481/5

Matrix: Water

Analysis Batch: 485481

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	4.00	4.39		ug/L		110	70 - 130
1,1,2,2-Tetrachloroethane	4.00	3.85		ug/L		96	70 - 130
1,1,2-Trichloroethane	4.00	4.01		ug/L		100	70 - 130
1,1-Dichloroethane	4.00	3.92		ug/L		98	70 - 130
1,1-Dichloroethane	4.00	4.17		ug/L		104	70 - 130
1,1-Dichloropropene	4.00	3.88		ug/L		97	70 - 130
1,2,3-Trichlorobenzene	4.00	3.85		ug/L		96	70 - 130
1,2,3-Trichloropropane	4.00	3.91		ug/L		98	70 - 130
1,2,4-Trichlorobenzene	4.00	3.69		ug/L		92	70 - 130
1,2,4-Trimethylbenzene	4.00	3.83		ug/L		96	70 - 130
1,2-Dichlorobenzene	4.00	3.81		ug/L		95	70 - 130
1,2-Dichloroethane	4.00	4.05		ug/L		101	70 - 130
1,2-Dichloropropane	4.00	4.01		ug/L		100	70 - 130
1,3,5-Trimethylbenzene	4.00	3.86		ug/L		96	70 - 130

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-485481/5

Matrix: Water

Analysis Batch: 485481

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	4.00	3.97		ug/L		99	70 - 130
1,3-Dichloropropane	4.00	4.01		ug/L		100	70 - 130
1,4-Dichlorobenzene	4.00	3.99		ug/L		100	70 - 130
2,2-Dichloropropane	4.00	4.26		ug/L		106	70 - 130
2-Butanone (MEK)	20.0	20.2		ug/L		101	70 - 130
2-Chlorotoluene	4.00	3.75		ug/L		94	70 - 130
2-Hexanone	20.0	18.5		ug/L		92	70 - 130
4-Chlorotoluene	4.00	3.94		ug/L		98	70 - 130
4-Isopropyltoluene	4.00	3.80		ug/L		95	70 - 130
4-Methyl-2-pentanone (MIBK)	20.0	18.4		ug/L		92	70 - 130
Acetone	20.0	23.9		ug/L		120	70 - 130
Benzene	4.00	3.86		ug/L		96	70 - 130
Bromobenzene	4.00	3.90		ug/L		98	70 - 130
Bromochloromethane	4.00	3.93		ug/L		98	70 - 130
Bromoform	4.00	4.16		ug/L		104	70 - 130
Bromomethane	4.00	4.01		ug/L		100	70 - 130
Carbon disulfide	4.00	4.14		ug/L		103	70 - 130
Carbon tetrachloride	4.00	4.86		ug/L		122	70 - 130
Chlorobenzene	4.00	3.96		ug/L		99	70 - 130
Chlorodibromomethane	4.00	4.20		ug/L		105	70 - 130
Chloroethane	4.00	4.20		ug/L		105	70 - 130
Chloroform	4.00	3.93		ug/L		98	70 - 130
Chloromethane	4.00	4.41		ug/L		110	70 - 130
cis-1,2-Dichloroethene	4.00	4.10		ug/L		102	70 - 130
cis-1,3-Dichloropropene	4.00	3.75		ug/L		94	70 - 130
Dibromomethane	4.00	4.14		ug/L		103	70 - 130
Dichlorobromomethane	4.00	4.12		ug/L		103	70 - 130
Dichlorodifluoromethane	4.00	4.65		ug/L		116	70 - 130
Ethylbenzene	4.00	3.82		ug/L		96	70 - 130
Hexachlorobutadiene	4.00	4.00		ug/L		100	70 - 130
Isopropylbenzene	4.00	3.80		ug/L		95	70 - 130
Methyl tert-butyl ether	4.00	3.95		ug/L		99	70 - 130
Methylene Chloride	4.00	4.34		ug/L		108	70 - 130
Naphthalene	4.00	3.41		ug/L		85	70 - 130
n-Butylbenzene	4.00	3.68		ug/L		92	70 - 130
N-Propylbenzene	4.00	3.80		ug/L		95	70 - 130
sec-Butylbenzene	4.00	3.75		ug/L		94	70 - 130
Styrene	4.00	3.84		ug/L		96	70 - 130
tert-Butylbenzene	4.00	3.71		ug/L		93	70 - 130
Tetrachloroethene	4.00	4.15		ug/L		104	70 - 130
Toluene	4.00	3.88		ug/L		97	70 - 130
trans-1,2-Dichloroethene	4.00	4.25		ug/L		106	70 - 130
trans-1,3-Dichloropropene	4.00	3.66		ug/L		91	70 - 130
Trichloroethene	4.00	4.01		ug/L		100	70 - 130
Trichlorofluoromethane	4.00	4.59		ug/L		115	70 - 130
Vinyl chloride	4.00	4.36		ug/L		109	70 - 130

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-485481/5

Matrix: Water

Analysis Batch: 485481

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichlorobenzene-d4	101		80 - 120
4-Bromofluorobenzene (Surr)	100		80 - 120

Lab Sample ID: LLCS 480-485481/6

Matrix: Water

Analysis Batch: 485481

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS	LLCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
1,1,1,2-Tetrachloroethane	0.500	0.511		ug/L		102	50 - 150
1,1,1-Trichloroethane	0.500	0.532		ug/L		106	50 - 150
1,1,2,2-Tetrachloroethane	0.500	0.531		ug/L		106	50 - 150
1,1,2-Trichloroethane	0.500	0.528		ug/L		106	50 - 150
1,1-Dichloroethane	0.500	0.526		ug/L		105	50 - 150
1,1-Dichloroethane	0.500	0.546		ug/L		109	50 - 150
1,1-Dichloropropene	0.500	0.534		ug/L		107	50 - 150
1,2,3-Trichlorobenzene	0.500	0.503		ug/L		101	50 - 150
1,2,3-Trichloropropane	0.500	0.496	J	ug/L		99	50 - 150
1,2,4-Trichlorobenzene	0.500	0.512		ug/L		102	50 - 150
1,2,4-Trimethylbenzene	0.500	0.454	J	ug/L		91	50 - 150
1,2-Dichlorobenzene	0.500	0.528		ug/L		106	50 - 150
1,2-Dichloroethane	0.500	0.517		ug/L		103	50 - 150
1,2-Dichloropropane	0.500	0.529		ug/L		106	50 - 150
1,3,5-Trimethylbenzene	0.500	0.452	J	ug/L		90	50 - 150
1,3-Dichlorobenzene	0.500	0.519		ug/L		104	50 - 150
1,3-Dichloropropane	0.500	0.522		ug/L		104	50 - 150
1,4-Dichlorobenzene	0.500	0.541		ug/L		108	50 - 150
2,2-Dichloropropane	0.500	0.594		ug/L		119	50 - 150
2-Butanone (MEK)	2.50	3.12	J	ug/L		125	50 - 150
2-Chlorotoluene	0.500	0.491	J	ug/L		98	50 - 150
2-Hexanone	2.50	2.25	J	ug/L		90	50 - 150
4-Chlorotoluene	0.500	0.492	J	ug/L		98	50 - 150
4-Isopropyltoluene	0.500	0.446	J	ug/L		89	50 - 150
4-Methyl-2-pentanone (MIBK)	2.50	2.20	J	ug/L		88	50 - 150
Acetone	2.50	3.60	J	ug/L		144	50 - 150
Benzene	0.500	0.541		ug/L		108	50 - 150
Bromobenzene	0.500	0.525		ug/L		105	50 - 150
Bromochloromethane	0.500	0.566		ug/L		113	50 - 150
Bromoform	0.500	0.481	J	ug/L		96	50 - 150
Bromomethane	0.500	0.544		ug/L		109	50 - 150
Carbon disulfide	0.500	0.506		ug/L		101	50 - 150
Carbon tetrachloride	0.500	0.611		ug/L		122	50 - 150
Chlorobenzene	0.500	0.544		ug/L		109	50 - 150
Chlorodibromomethane	0.500	0.529		ug/L		106	50 - 150
Chloroethane	0.500	0.543		ug/L		109	50 - 150
Chloroform	0.500	0.561		ug/L		112	50 - 150
Chloromethane	0.500	0.461	J	ug/L		92	50 - 150
cis-1,2-Dichloroethene	0.500	0.558		ug/L		112	50 - 150
cis-1,3-Dichloropropene	0.500	0.471	J	ug/L		94	50 - 150

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LLCS 480-485481/6

Matrix: Water

Analysis Batch: 485481

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	0.500	0.530		ug/L		106	50 - 150
Dichlorobromomethane	0.500	0.539		ug/L		108	50 - 150
Dichlorodifluoromethane	0.500	0.566		ug/L		113	50 - 150
Ethylbenzene	0.500	0.470	J	ug/L		94	50 - 150
Hexachlorobutadiene	0.500	0.519		ug/L		104	50 - 150
Isopropylbenzene	0.500	0.458	J	ug/L		92	50 - 150
Methyl tert-butyl ether	0.500	0.503		ug/L		101	50 - 150
Methylene Chloride	0.500	ND	*	ug/L		172	50 - 150
Naphthalene	0.500	0.400	J	ug/L		80	50 - 150
n-Butylbenzene	0.500	0.427	J	ug/L		85	50 - 150
N-Propylbenzene	0.500	0.460	J	ug/L		92	50 - 150
sec-Butylbenzene	0.500	0.458	J	ug/L		92	50 - 150
Styrene	0.500	0.436	J	ug/L		87	50 - 150
tert-Butylbenzene	0.500	0.452	J	ug/L		90	50 - 150
Tetrachloroethene	0.500	0.530		ug/L		106	50 - 150
Toluene	0.500	0.511		ug/L		102	50 - 150
trans-1,2-Dichloroethene	0.500	0.580		ug/L		116	50 - 150
trans-1,3-Dichloropropene	0.500	0.425	J	ug/L		85	50 - 150
Trichloroethene	0.500	0.534		ug/L		107	50 - 150
Trichlorofluoromethane	0.500	0.486	J	ug/L		97	50 - 150
Vinyl chloride	0.500	0.605		ug/L		121	50 - 150

Surrogate	LLCS %Recovery	LLCS Qualifier	Limits
1,2-Dichlorobenzene-d4	102		80 - 120
4-Bromofluorobenzene (Surr)	92		80 - 120

## Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 480-485380/4

Matrix: Water

Analysis Batch: 485380

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			08/05/19 12:09	1
Ethane	ND		7.5	1.5	ug/L			08/05/19 12:09	1
Ethene	ND		7.0	1.5	ug/L			08/05/19 12:09	1

Lab Sample ID: LCS 480-485380/5

Matrix: Water

Analysis Batch: 485380

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	19.2	18.8		ug/L		98	85 - 120
Ethane	36.2	36.4		ug/L		101	79 - 120
Ethene	33.8	31.9		ug/L		94	85 - 120

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-485549/4  
Matrix: Water  
Analysis Batch: 485549

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.28	mg/L			08/06/19 10:29	1
Sulfate	ND		2.0	0.35	mg/L			08/06/19 10:29	1

Lab Sample ID: LCS 480-485549/3  
Matrix: Water  
Analysis Batch: 485549

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	49.28		mg/L		99	90 - 110
Sulfate	50.0	46.33		mg/L		93	90 - 110

## Method: 353.2 - Nitrogen, Nitrite

Lab Sample ID: MB 480-485408/27  
Matrix: Water  
Analysis Batch: 485408

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.050	0.020	mg/L			08/05/19 12:43	1

Lab Sample ID: MB 480-485408/51  
Matrix: Water  
Analysis Batch: 485408

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.050	0.020	mg/L			08/05/19 13:11	1

Lab Sample ID: LCS 480-485408/28  
Matrix: Water  
Analysis Batch: 485408

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	1.50	1.51		mg/L		101	90 - 110

Lab Sample ID: LCS 480-485408/52  
Matrix: Water  
Analysis Batch: 485408

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	1.50	1.49		mg/L		99	90 - 110

## Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 480-485199/28  
Matrix: Water  
Analysis Batch: 485199

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.050	0.020	mg/L			08/02/19 18:32	1

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

**Lab Sample ID: MB 480-485199/52**  
**Matrix: Water**  
**Analysis Batch: 485199**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.050	0.020	mg/L			08/02/19 19:00	1

**Lab Sample ID: LCS 480-485199/29**  
**Matrix: Water**  
**Analysis Batch: 485199**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	1.50	1.44		mg/L		96	90 - 110

**Lab Sample ID: LCS 480-485199/53**  
**Matrix: Water**  
**Analysis Batch: 485199**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	1.50	1.48		mg/L		99	90 - 110

## Method: SM 2320B - Alkalinity

**Lab Sample ID: MB 480-486375/30**  
**Matrix: Water**  
**Analysis Batch: 486375**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0	0.79	mg/L			08/10/19 01:24	1
Alkalinity, Bicarbonate	ND		5.0	0.79	mg/L			08/10/19 01:24	1
Alkalinity, Carbonate	ND		5.0	0.79	mg/L			08/10/19 01:24	1
Hydroxide Alkalinity	ND		5.0	0.79	mg/L			08/10/19 01:24	1

**Lab Sample ID: LCS 480-486375/31**  
**Matrix: Water**  
**Analysis Batch: 486375**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	100	101.5		mg/L		102	90 - 110

## Method: SM 3500 FE D - Iron, Ferrous and Ferric

**Lab Sample ID: MB 480-486766/3**  
**Matrix: Water**  
**Analysis Batch: 486766**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferrous Iron, Dissolved	ND		0.10	0.075	mg/L			08/13/19 13:25	1

**Lab Sample ID: LCS 480-486766/4**  
**Matrix: Water**  
**Analysis Batch: 486766**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron, Dissolved	2.00	2.02		mg/L		101	90 - 110

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## Method: SM 3500 FE D - Iron, Ferrous and Ferric (Continued)

Lab Sample ID: 480-157112-11 MS  
Matrix: Water  
Analysis Batch: 486766

Client Sample ID: LVRA-CCA-MW-3-080119  
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron, Dissolved	ND	HF F1	1.00	0.671	F1	mg/L		67	70 - 130

## Method: SM 4500 S2 F - Sulfide, Total

Lab Sample ID: MB 480-485905/3  
Matrix: Water  
Analysis Batch: 485905

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		1.0	0.67	mg/L			08/07/19 15:10	1

Lab Sample ID: LCS 480-485905/4  
Matrix: Water  
Analysis Batch: 485905

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	7.40	7.20		mg/L		97	90 - 110

## Method: SM 5310C - TOC

Lab Sample ID: MB 480-486807/4  
Matrix: Water  
Analysis Batch: 486807

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0	0.43	mg/L			08/10/19 20:15	1

Lab Sample ID: LCS 480-486807/5  
Matrix: Water  
Analysis Batch: 486807

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	60.0	55.52		mg/L		93	90 - 110

# QC Association Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## GC/MS VOA

### Analysis Batch: 485271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157112-1	LVRA-BIA-MW-2-PDB-080119	Total/NA	Water	524.2	
480-157112-2	LVRA-BIA-MW-2-080119	Total/NA	Water	524.2	
480-157112-3	LVRA-BIA-MW-5-PDB-080119	Total/NA	Water	524.2	
480-157112-4	LVRA-BIA-MW-6-PDB-080119	Total/NA	Water	524.2	
MB 480-485271/7	Method Blank	Total/NA	Water	524.2	
LCS 480-485271/4	Lab Control Sample	Total/NA	Water	524.2	
LCSD 480-485271/5	Lab Control Sample Dup	Total/NA	Water	524.2	
LLCS 480-485271/6	Lab Control Sample	Total/NA	Water	524.2	

### Analysis Batch: 485481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157112-4 - DL	LVRA-BIA-MW-6-PDB-080119	Total/NA	Water	524.2	
480-157112-5	LVRA-BIA-MW-D1-PDB-080119	Total/NA	Water	524.2	
480-157112-6	LVRA-BIA-MW-3-PDB-080119	Total/NA	Water	524.2	
480-157112-7	LVRA-GTA-LV8-PDB-080119	Total/NA	Water	524.2	
480-157112-8	LVRA-GTA-PZ27-PDB-080119	Total/NA	Water	524.2	
480-157112-9	LVRA-GTA-PZ28D-PDB-080119	Total/NA	Water	524.2	
480-157112-10	LVRA-CCA-MW-3-PDB-080119	Total/NA	Water	524.2	
480-157112-11	LVRA-CCA-MW-3-080119	Total/NA	Water	524.2	
480-157112-12	LVRA-CCA-MW-8-PDB-080119	Total/NA	Water	524.2	
480-157112-13	LVRA-CCA-MW-1-PDB-080119	Total/NA	Water	524.2	
480-157112-14	TRIP BLANK-080119	Total/NA	Water	524.2	
MB 480-485481/7	Method Blank	Total/NA	Water	524.2	
LCS 480-485481/5	Lab Control Sample	Total/NA	Water	524.2	
LLCS 480-485481/6	Lab Control Sample	Total/NA	Water	524.2	

## GC VOA

### Analysis Batch: 485380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157112-2	LVRA-BIA-MW-2-080119	Total/NA	Water	RSK-175	
480-157112-11	LVRA-CCA-MW-3-080119	Total/NA	Water	RSK-175	
MB 480-485380/4	Method Blank	Total/NA	Water	RSK-175	
LCS 480-485380/5	Lab Control Sample	Total/NA	Water	RSK-175	

## General Chemistry

### Analysis Batch: 485199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157112-2	LVRA-BIA-MW-2-080119	Total/NA	Water	353.2	
480-157112-11	LVRA-CCA-MW-3-080119	Total/NA	Water	353.2	
MB 480-485199/28	Method Blank	Total/NA	Water	353.2	
MB 480-485199/52	Method Blank	Total/NA	Water	353.2	
LCS 480-485199/29	Lab Control Sample	Total/NA	Water	353.2	
LCS 480-485199/53	Lab Control Sample	Total/NA	Water	353.2	

### Analysis Batch: 485408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157112-2	LVRA-BIA-MW-2-080119	Total/NA	Water	353.2	
480-157112-11	LVRA-CCA-MW-3-080119	Total/NA	Water	353.2	
MB 480-485408/27	Method Blank	Total/NA	Water	353.2	
MB 480-485408/51	Method Blank	Total/NA	Water	353.2	

Eurofins TestAmerica, Buffalo

# QC Association Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## General Chemistry (Continued)

### Analysis Batch: 485408 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-485408/28	Lab Control Sample	Total/NA	Water	353.2	
LCS 480-485408/52	Lab Control Sample	Total/NA	Water	353.2	

### Analysis Batch: 485454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157112-2	LVRA-BIA-MW-2-080119	Total/NA	Water	353.2	
480-157112-11	LVRA-CCA-MW-3-080119	Total/NA	Water	353.2	

### Analysis Batch: 485549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157112-2	LVRA-BIA-MW-2-080119	Total/NA	Water	300.0	
480-157112-11	LVRA-CCA-MW-3-080119	Total/NA	Water	300.0	
MB 480-485549/4	Method Blank	Total/NA	Water	300.0	
LCS 480-485549/3	Lab Control Sample	Total/NA	Water	300.0	

### Analysis Batch: 485905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157112-2	LVRA-BIA-MW-2-080119	Total/NA	Water	SM 4500 S2 F	
480-157112-11	LVRA-CCA-MW-3-080119	Total/NA	Water	SM 4500 S2 F	
MB 480-485905/3	Method Blank	Total/NA	Water	SM 4500 S2 F	
LCS 480-485905/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 F	

### Analysis Batch: 486375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157112-2	LVRA-BIA-MW-2-080119	Total/NA	Water	SM 2320B	
480-157112-11	LVRA-CCA-MW-3-080119	Total/NA	Water	SM 2320B	
MB 480-486375/30	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-486375/31	Lab Control Sample	Total/NA	Water	SM 2320B	

### Analysis Batch: 486766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157112-2	LVRA-BIA-MW-2-080119	Dissolved	Water	SM 3500 FE D	
480-157112-11	LVRA-CCA-MW-3-080119	Dissolved	Water	SM 3500 FE D	
MB 480-486766/3	Method Blank	Total/NA	Water	SM 3500 FE D	
LCS 480-486766/4	Lab Control Sample	Total/NA	Water	SM 3500 FE D	
480-157112-11 MS	LVRA-CCA-MW-3-080119	Dissolved	Water	SM 3500 FE D	

### Analysis Batch: 486807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157112-2	LVRA-BIA-MW-2-080119	Total/NA	Water	SM 5310C	
480-157112-11	LVRA-CCA-MW-3-080119	Total/NA	Water	SM 5310C	
MB 480-486807/4	Method Blank	Total/NA	Water	SM 5310C	
LCS 480-486807/5	Lab Control Sample	Total/NA	Water	SM 5310C	

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-BIA-MW-2-PDB-080119**

**Lab Sample ID: 480-157112-1**

Date Collected: 08/01/19 08:30

Matrix: Water

Date Received: 08/01/19 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485271	08/05/19 15:18	CDC	TAL BUF

**Client Sample ID: LVRA-BIA-MW-2-080119**

**Lab Sample ID: 480-157112-2**

Date Collected: 08/01/19 09:30

Matrix: Water

Date Received: 08/01/19 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485271	08/05/19 15:43	CDC	TAL BUF
Total/NA	Analysis	RSK-175		1	485380	08/05/19 14:59	DSC	TAL BUF
Total/NA	Analysis	300.0		2	485549	08/06/19 14:22	IMZ	TAL BUF
Total/NA	Analysis	353.2		1	485199	08/02/19 19:06	BEF	TAL BUF
Total/NA	Analysis	353.2		1	485408	08/05/19 13:20	KMF	TAL BUF
Total/NA	Analysis	353.2		1	485454	08/05/19 13:20	KMF	TAL BUF
Total/NA	Analysis	SM 2320B		1	486375	08/10/19 02:10	KEB	TAL BUF
Dissolved	Analysis	SM 3500 FE D		1	486766	08/13/19 13:25	MDL	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	485905	08/07/19 15:10	MJB	TAL BUF
Total/NA	Analysis	SM 5310C		1	486807	08/11/19 01:45	CLA	TAL BUF

**Client Sample ID: LVRA-BIA-MW-5-PDB-080119**

**Lab Sample ID: 480-157112-3**

Date Collected: 08/01/19 10:10

Matrix: Water

Date Received: 08/01/19 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485271	08/05/19 16:08	CDC	TAL BUF

**Client Sample ID: LVRA-BIA-MW-6-PDB-080119**

**Lab Sample ID: 480-157112-4**

Date Collected: 08/01/19 10:40

Matrix: Water

Date Received: 08/01/19 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485271	08/05/19 16:32	CDC	TAL BUF
Total/NA	Analysis	524.2	DL	4	485481	08/06/19 09:46	CDC	TAL BUF

**Client Sample ID: LVRA-BIA-MW-D1-PDB-080119**

**Lab Sample ID: 480-157112-5**

Date Collected: 08/01/19 10:55

Matrix: Water

Date Received: 08/01/19 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485481	08/06/19 10:11	CDC	TAL BUF

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-BIA-MW-3-PDB-080119**

**Lab Sample ID: 480-157112-6**

Date Collected: 08/01/19 11:10

Matrix: Water

Date Received: 08/01/19 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485481	08/06/19 12:42	CDC	TAL BUF

**Client Sample ID: LVRA-GTA-LV8-PDB-080119**

**Lab Sample ID: 480-157112-7**

Date Collected: 08/01/19 11:45

Matrix: Water

Date Received: 08/01/19 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485481	08/06/19 13:07	CDC	TAL BUF

**Client Sample ID: LVRA-GTA-PZ27-PDB-080119**

**Lab Sample ID: 480-157112-8**

Date Collected: 08/01/19 12:30

Matrix: Water

Date Received: 08/01/19 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485481	08/06/19 13:32	CDC	TAL BUF

**Client Sample ID: LVRA-GTA-PZ28D-PDB-080119**

**Lab Sample ID: 480-157112-9**

Date Collected: 08/01/19 12:40

Matrix: Water

Date Received: 08/01/19 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485481	08/06/19 13:57	CDC	TAL BUF

**Client Sample ID: LVRA-CCA-MW-3-PDB-080119**

**Lab Sample ID: 480-157112-10**

Date Collected: 08/01/19 13:45

Matrix: Water

Date Received: 08/01/19 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485481	08/06/19 14:22	CDC	TAL BUF

**Client Sample ID: LVRA-CCA-MW-3-080119**

**Lab Sample ID: 480-157112-11**

Date Collected: 08/01/19 15:10

Matrix: Water

Date Received: 08/01/19 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485481	08/06/19 14:46	CDC	TAL BUF
Total/NA	Analysis	RSK-175		1	485380	08/05/19 15:18	DSC	TAL BUF
Total/NA	Analysis	300.0		1	485549	08/06/19 14:37	IMZ	TAL BUF
Total/NA	Analysis	353.2		1	485199	08/02/19 19:08	BEF	TAL BUF
Total/NA	Analysis	353.2		1	485454	08/05/19 13:24	KMF	TAL BUF
Total/NA	Analysis	353.2		1	485408	08/05/19 13:24	KMF	TAL BUF
Total/NA	Analysis	SM 2320B		1	486375	08/10/19 02:16	KEB	TAL BUF
Dissolved	Analysis	SM 3500 FE D		1	486766	08/13/19 13:25	MDL	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	485905	08/07/19 15:10	MJB	TAL BUF
Total/NA	Analysis	SM 5310C		1	486807	08/11/19 02:01	CLA	TAL BUF

Eurofins TestAmerica, Buffalo

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

**Client Sample ID: LVRA-CCA-MW-8-PDB-080119**

**Lab Sample ID: 480-157112-12**

Date Collected: 08/01/19 15:45

Matrix: Water

Date Received: 08/01/19 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485481	08/06/19 15:11	CDC	TAL BUF

**Client Sample ID: LVRA-CCA-MW-1-PDB-080119**

**Lab Sample ID: 480-157112-13**

Date Collected: 08/01/19 15:55

Matrix: Water

Date Received: 08/01/19 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485481	08/06/19 15:36	CDC	TAL BUF

**Client Sample ID: TRIP BLANK-080119**

**Lab Sample ID: 480-157112-14**

Date Collected: 08/01/19 00:00

Matrix: Water

Date Received: 08/01/19 18:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485481	08/06/19 16:01	CDC	TAL BUF

**Laboratory References:**

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600



# Accreditation/Certification Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

## Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
524.2		Water	2-Butanone (MEK)
524.2		Water	2-Hexanone
524.2		Water	Acrylonitrile
524.2		Water	Allyl chloride
524.2		Water	Carbon disulfide
524.2		Water	Ethyl ether
524.2		Water	m-Xylene & p-Xylene
524.2		Water	o-Xylene
524.2		Water	trans-1,4-Dichloro-2-butene
SM 3500 FE D		Water	Ferrous Iron, Dissolved

# Method Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

Method	Method Description	Protocol	Laboratory
524.2	Volatile Organic Compounds (GC/MS)	EPA-DW	TAL BUF
RSK-175	Dissolved Gases (GC)	RSK	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
353.2	Nitrate	EPA	TAL BUF
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL BUF
353.2	Nitrogen, Nitrite	MCAWW	TAL BUF
SM 2320B	Alkalinity	SM	TAL BUF
SM 3500 FE D	Iron, Ferrous and Ferric	SM	TAL BUF
SM 4500 S2 F	Sulfide, Total	SM	TAL BUF
SM 5310C	TOC	SM	TAL BUF

#### Protocol References:

EPA = US Environmental Protection Agency

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

#### Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# Sample Summary

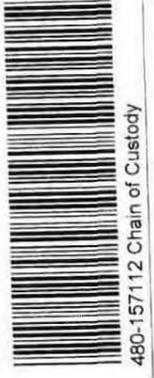
Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157112-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-157112-1	LVRA-BIA-MW-2-PDB-080119	Water	08/01/19 08:30	08/01/19 18:15	
480-157112-2	LVRA-BIA-MW-2-080119	Water	08/01/19 09:30	08/01/19 18:15	
480-157112-3	LVRA-BIA-MW-5-PDB-080119	Water	08/01/19 10:10	08/01/19 18:15	
480-157112-4	LVRA-BIA-MW-6-PDB-080119	Water	08/01/19 10:40	08/01/19 18:15	
480-157112-5	LVRA-BIA-MW-D1-PDB-080119	Water	08/01/19 10:55	08/01/19 18:15	
480-157112-6	LVRA-BIA-MW-3-PDB-080119	Water	08/01/19 11:10	08/01/19 18:15	
480-157112-7	LVRA-GTA-LV8-PDB-080119	Water	08/01/19 11:45	08/01/19 18:15	
480-157112-8	LVRA-GTA-PZ27-PDB-080119	Water	08/01/19 12:30	08/01/19 18:15	
480-157112-9	LVRA-GTA-PZ28D-PDB-080119	Water	08/01/19 12:40	08/01/19 18:15	
480-157112-10	LVRA-CCA-MW-3-PDB-080119	Water	08/01/19 13:45	08/01/19 18:15	
480-157112-11	LVRA-CCA-MW-3-080119	Water	08/01/19 15:10	08/01/19 18:15	
480-157112-12	LVRA-CCA-MW-8-PDB-080119	Water	08/01/19 15:45	08/01/19 18:15	
480-157112-13	LVRA-CCA-MW-1-PDB-080119	Water	08/01/19 15:55	08/01/19 18:15	
480-157112-14	TRIP BLANK-080119	Water	08/01/19 00:00	08/01/19 18:15	

CHAIN OF CUSTODY RECORD

Client/Project Name: NYSDEC/AECOM/waters Little Valley Site		Project Location: Little Valley, NY		NYSDEC Site ID: 9-05-026		Container Type: P - Plastic A - Amber Glass G - Clear Glass V - VOA Vial O - Other E - Encore		
Project Number: 6026-6877-1		FedEx/UPS Tracking Number: Hand Deliver		Analysis Requested: 40ml via EPA 524.2 VCL 60ml via 3000-280-Cl <sup>-</sup> 504 40ml via RSK-175 - Methane, Ethane 40ml via 530C - TOC 20ml via 5M450.52 F - slide 125ml P 353.2 - Nitrogen, calcium 125ml P 353.2 - Nitrite 125ml P 2320 B - Alkalinity (over headspace) 125ml P 3500 FE-D - Ferrus Fe (field filtered) 125ml P Extra bottle (per lab)		Preservation: 1 - HC, 4" 2 - H2SO4, 4" 3 - HNO3, 4" 4 - NaOH, 4" 5 - NaOH/ZnAc, 4" 6 - Na2S2O3, 4" 7 - 4"		
Send Results/Report to: AECOM 40 British American Blvd. Latham, NY 12110		Project Manager: Steve Choiniere		TAT: Standard		Matrix Codes: S - Soil DW - Drinking Water WW - Wastewater GW - Groundwater SW - Surface Water ST - Storm Water W - Water P - Product		
Sampler: Matt / MPB		Matrix:		Samp Containers		Remarks: Passive Diffusion Bag (PDB) Low-flow PDB PDB PDB PDB PDB PDB PDB Low-flow PDB PDB TRIP BLANK		
Field Sample No./Identification	Date	Time	C O M P	G R A B	# of Containers	Matrix	Preserv	Samp Containers
LVRA-BIA-MW-2-PDB-080119	8/1/19	08:30	X	X	3	GW	I	V
LVRA-BIA-MW-2-DBO119	8/1/19	09:30	X	X	15	GW	1,5,7	V,P
LVRA-BIA-MW-5-PDB-080119	8/1/19	10:10	X	X	3	GW	I	V
LVRA-BIA-MW-6-PDB-080119	8/1/19	10:40	X	X	3	GW	I	V
LVRA-BIA-MW-D1-PDB-080119	8/1/19	10:55	X	X	3	GW	I	V
LVRA-BIA-MW-3-PDB-080119	8/1/19	11:10	X	X	3	GW	I	V
LVRA-GTA-LV8-PDB-080119	8/1/19	11:45	X	X	3	GW	I	V
LVRA-GTA-P221-PDB-080119	8/1/19	12:30	X	X	3	GW	I	V
LVRA-GTA-P228D-PDB-080119	8/1/19	12:40	X	X	3	GW	I	V
LVRA-CCA-MW3-PDB-080119	8/1/19	13:45	X	X	3	GW	I	V
LVRA-CCA-MW3-DBO119	8/1/19	15:10	X	X	15	GW	1,5,7	V,P
LVRA-CCA-MW3-PDB-080119	8/1/19	15:45	X	X	3	GW	I	V
LVRA-CCA-MW1-PDB-080119	8/1/19	15:55	X	X	3	GW	I	V
TRIPBLANK-080119	8/1/19				2	W	I	V
Relinquished by: Matt Auler		Date: 8/1/19	Received by: (Signature)		Additional Remarks: MNA Sampling, Low-flow & Passive Diffusion Bags #1310			
Relinquished by:		Time: 1815	Date:	UPS	FedEx	Courier	Other	
Relinquished by:		Date:	Date:	Temp blank				
Relinquished by:		Time:	Time:	Yes No				



Serial No. 593

## Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-157112-1

**Login Number: 157112**

**List Source: Eurofins TestAmerica, Buffalo**

**List Number: 1**

**Creator: Wallace, Cameron**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	



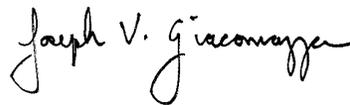
## ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo  
10 Hazelwood Drive  
Amherst, NY 14228-2298  
Tel: (716)691-2600

Laboratory Job ID: 480-157180-1  
Client Project/Site: Little Valley #905026

For:  
New York State D.E.C.  
625 Broadway 9th Floor  
Albany, New York 12233-7258

Attn: George Momberger



Authorized for release by:  
8/13/2019 10:10:37 AM

Joe Giacomazza, Project Management Assistant II  
[joe.giacomazza@testamericainc.com](mailto:joe.giacomazza@testamericainc.com)

Designee for

Orlette Johnson, Senior Project Manager  
(484)685-0864  
[orlette.johnson@testamericainc.com](mailto:orlette.johnson@testamericainc.com)

### LINKS

Review your project  
results through  
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Have a Question?



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[www.testamericainc.com](http://www.testamericainc.com)

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



---

Joe Giacomazza  
Project Management Assistant II  
8/13/2019 10:10:37 AM



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# Definitions/Glossary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

## Job ID: 480-157180-1

### Laboratory: Eurofins TestAmerica, Buffalo

#### Narrative

#### Job Narrative 480-157180-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 8/2/2019 5:41 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3° C.

#### GC/MS VOA

Method(s) 524.2: The analyte Methylene Chloride was outside recovery limits, biased high, in the low level laboratory control sample (LLCS) for analytical batch 480-485737. Methylene Chloride was detected in the following samples: LVRA-CCA-MW4-PDB-080219 (480-157180-2), LVRA-CCA-MW6-PDB-080219 (480-157180-4) and LVRA-CCA-MW7-PDB-080219 (480-157180-5). Methylene Chloride is a common laboratory contaminate, therefore any detection may potentially be due in part to laboratory contamination and should be evaluated accordingly.

Method(s) 524.2: The analyte Acetone was outside recovery limits, biased high, in the laboratory control sample, laboratory control sample duplicate and low level laboratory control sample (LCS, LCSD, LLCS) for analytical batch 480-485737. Acetone was detected in the following samples: LVRA-CCA-MW2-PDB-080219 (480-157180-1), LVRA-CCA-MW4-PDB-080219 (480-157180-2), LVRA-CCA-MW5-PDB-080219 (480-157180-3), LVRA-CCA-MW6-PDB-080219 (480-157180-4), LVRA-CCA-MW7-PDB-080219 (480-157180-5), LVRA-CCA-MW9D-PDB-080219 (480-157180-6), LVRA-CCA-MW10-PDB-080219 (480-157180-7), LVRA-CCA-MW11D-PDB-080219 (480-157180-8) and LVRA-CCA-MW12-PDB-080219 (480-157180-9). Acetone is a common laboratory contaminate, therefore any detection may potentially be due in part to laboratory contamination and should be evaluated accordingly.

Method(s) 524.2: The low level laboratory control sample (LLCS) for analytical batch 480-485737 recovered outside control limits for the following analyte: Methylene Chloride. This analyte was biased high in the LLCS and were not detected above the reporting limit in the associated samples; therefore, the data have been reported. The following samples are impacted: LVRA-CCA-MW2-PDB-080219 (480-157180-1), LVRA-CCA-MW5-PDB-080219 (480-157180-3), LVRA-CCA-MW9D-PDB-080219 (480-157180-6), LVRA-CCA-MW10-PDB-080219 (480-157180-7), LVRA-CCA-MW11D-PDB-080219 (480-157180-8) and LVRA-CCA-MW12-PDB-080219 (480-157180-9).

Method(s) 524.2: The laboratory control sample (LCS) and/or low level laboratory control sample duplicate (LLCS) for analytical batch 480-485957 recovered outside control limits for the following analyte: Acetone. This analyte was biased high in the LCS/LLCS and was not detected in the associated sample; therefore, the data have been reported. The following sample is impacted: TRIP BLANK-080219 (480-157180-14).

Method(s) 524.2: The laboratory control sample (LCS) and/or low level laboratory control sample duplicate (LLCS) for analytical batch 480-485957 recovered outside control limits for the following analytes: Acetone. These analytes were biased high in the LCS/LLCS and are common laboratory contaminants, therefore any detection may potentially be due in part to laboratory contamination and should be evaluated accordingly. The following samples are impacted: LVRA-CCA-PZ20D-PDB-080219 (480-157180-10), LVRA-GTA-PZ47D-PDB-080219 (480-157180-11), LVRA-GTA-PZ48-PDB-080219 (480-157180-12) and FIELD BLANK-080219 (480-157180-13).

Method(s) 524.2: The low level laboratory control sample duplicate (LLCS) for analytical batch 480-485957 recovered outside control limits for the following analyte: Methylene Chloride. This analyte was biased high in the LLCS and are common laboratory contaminants, therefore any detection may potentially be due in part to laboratory contamination and should be evaluated accordingly. The following samples are impacted: LVRA-GTA-PZ47D-PDB-080219 (480-157180-11) and LVRA-GTA-PZ48-PDB-080219 (480-157180-12).

Method(s) 524.2: The low level laboratory control sample duplicate (LLCS) for analytical batch 480-485957 recovered outside control limits for the following analyte: Methylene Chloride. This analyte was biased high in the LLCS and was not detected in the associated sample; therefore, the data have been reported. The following samples are impacted: LVRA-CCA-PZ20D-PDB-080219 (480-157180-10), FIELD BLANK-080219 (480-157180-13) and TRIP BLANK-080219 (480-157180-14).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## Detection Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

### Client Sample ID: LVRA-CCA-MW2-PDB-080219

Lab Sample ID: 480-157180-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	27	*	5.0	1.0	ug/L	1		524.2	Total/NA
Trichloroethene	0.73		0.50	0.18	ug/L	1		524.2	Total/NA

### Client Sample ID: LVRA-CCA-MW4-PDB-080219

Lab Sample ID: 480-157180-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	34	*	5.0	1.0	ug/L	1		524.2	Total/NA
Methylene Chloride	8.1	*	2.5	0.99	ug/L	1		524.2	Total/NA
Tetrachloroethene	0.80		0.50	0.20	ug/L	1		524.2	Total/NA

### Client Sample ID: LVRA-CCA-MW5-PDB-080219

Lab Sample ID: 480-157180-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	22	*	5.0	1.0	ug/L	1		524.2	Total/NA
Trichloroethene	6.4		0.50	0.18	ug/L	1		524.2	Total/NA

### Client Sample ID: LVRA-CCA-MW6-PDB-080219

Lab Sample ID: 480-157180-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	46	*	5.0	1.0	ug/L	1		524.2	Total/NA
Methylene Chloride	7.5	*	2.5	0.99	ug/L	1		524.2	Total/NA
Tetrachloroethene	0.80		0.50	0.20	ug/L	1		524.2	Total/NA

### Client Sample ID: LVRA-CCA-MW7-PDB-080219

Lab Sample ID: 480-157180-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	31	*	5.0	1.0	ug/L	1		524.2	Total/NA
Methylene Chloride	7.5	*	2.5	0.99	ug/L	1		524.2	Total/NA
Tetrachloroethene	0.61		0.50	0.20	ug/L	1		524.2	Total/NA

### Client Sample ID: LVRA-CCA-MW9D-PDB-080219

Lab Sample ID: 480-157180-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	36	*	5.0	1.0	ug/L	1		524.2	Total/NA
Trichloroethene	0.71		0.50	0.18	ug/L	1		524.2	Total/NA

### Client Sample ID: LVRA-CCA-MW10-PDB-080219

Lab Sample ID: 480-157180-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	36	*	5.0	1.0	ug/L	1		524.2	Total/NA
Tetrachloroethene	0.44	J	0.50	0.20	ug/L	1		524.2	Total/NA
Trichloroethene	10		0.50	0.18	ug/L	1		524.2	Total/NA

### Client Sample ID: LVRA-CCA-MW11D-PDB-080219

Lab Sample ID: 480-157180-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	42	*	5.0	1.0	ug/L	1		524.2	Total/NA

### Client Sample ID: LVRA-CCA-MW12-PDB-080219

Lab Sample ID: 480-157180-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	40	*	5.0	1.0	ug/L	1		524.2	Total/NA
Trichloroethene	2.1		0.50	0.18	ug/L	1		524.2	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

# Detection Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

## Client Sample ID: LVRA-CCA-PZ20D-PDB-080219

Lab Sample ID: 480-157180-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	41	*	5.0	1.0	ug/L	1		524.2	Total/NA

## Client Sample ID: LVRA-GTA-PZ47D-PDB-080219

Lab Sample ID: 480-157180-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	44	*	5.0	1.0	ug/L	1		524.2	Total/NA
Methylene Chloride	20	*	2.5	0.99	ug/L	1		524.2	Total/NA
Tetrachloroethene	2.9		0.50	0.20	ug/L	1		524.2	Total/NA
Trichloroethene	2.1		0.50	0.18	ug/L	1		524.2	Total/NA

## Client Sample ID: LVRA-GTA-PZ48-PDB-080219

Lab Sample ID: 480-157180-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	41	*	5.0	1.0	ug/L	1		524.2	Total/NA
Methylene Chloride	5.2	*	2.5	0.99	ug/L	1		524.2	Total/NA
Tetrachloroethene	0.28	J	0.50	0.20	ug/L	1		524.2	Total/NA
Trichloroethene	1.5		0.50	0.18	ug/L	1		524.2	Total/NA

## Client Sample ID: FIELD BLANK-080219

Lab Sample ID: 480-157180-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	20	*	5.0	1.0	ug/L	1		524.2	Total/NA

## Client Sample ID: TRIP BLANK-080219

Lab Sample ID: 480-157180-14

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-MW2-PDB-080219**

**Lab Sample ID: 480-157180-1**

Date Collected: 08/02/19 13:30

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/07/19 16:14	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/07/19 16:14	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/07/19 16:14	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/07/19 16:14	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/07/19 16:14	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/07/19 16:14	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/07/19 16:14	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/07/19 16:14	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/07/19 16:14	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 16:14	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/07/19 16:14	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/07/19 16:14	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/07/19 16:14	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/07/19 16:14	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/07/19 16:14	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 16:14	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/07/19 16:14	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 16:14	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/07/19 16:14	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/07/19 16:14	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/07/19 16:14	1
2-Hexanone	ND		5.0	1.0	ug/L			08/07/19 16:14	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/07/19 16:14	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/07/19 16:14	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/07/19 16:14	1
<b>Acetone</b>	<b>27 *</b>		5.0	1.0	ug/L			08/07/19 16:14	1
Acrylonitrile	ND		10	2.2	ug/L			08/07/19 16:14	1
Allyl chloride	ND		0.50	0.22	ug/L			08/07/19 16:14	1
Benzene	ND		0.50	0.13	ug/L			08/07/19 16:14	1
Bromobenzene	ND		0.50	0.13	ug/L			08/07/19 16:14	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/07/19 16:14	1
Bromoform	ND		0.50	0.13	ug/L			08/07/19 16:14	1
Bromomethane	ND		0.50	0.23	ug/L			08/07/19 16:14	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/07/19 16:14	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/07/19 16:14	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/07/19 16:14	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/07/19 16:14	1
Chloroethane	ND		0.50	0.20	ug/L			08/07/19 16:14	1
Chloroform	ND		0.50	0.14	ug/L			08/07/19 16:14	1
Chloromethane	ND		0.50	0.17	ug/L			08/07/19 16:14	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/07/19 16:14	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/07/19 16:14	1
Dibromomethane	ND		0.50	0.17	ug/L			08/07/19 16:14	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/07/19 16:14	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/07/19 16:14	1
Ethyl ether	ND		0.50	0.12	ug/L			08/07/19 16:14	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/07/19 16:14	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/07/19 16:14	1
Iodomethane	ND		0.50	0.15	ug/L			08/07/19 16:14	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-MW2-PDB-080219**

**Lab Sample ID: 480-157180-1**

Date Collected: 08/02/19 13:30

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/07/19 16:14	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/07/19 16:14	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/07/19 16:14	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/07/19 16:14	1
Naphthalene	ND		0.50	0.15	ug/L			08/07/19 16:14	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/07/19 16:14	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/07/19 16:14	1
o-Xylene	ND		0.50	0.12	ug/L			08/07/19 16:14	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/07/19 16:14	1
Styrene	ND		0.50	0.13	ug/L			08/07/19 16:14	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/07/19 16:14	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/07/19 16:14	1
Toluene	ND		0.50	0.10	ug/L			08/07/19 16:14	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/07/19 16:14	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/07/19 16:14	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/07/19 16:14	1
<b>Trichloroethene</b>	<b>0.73</b>		0.50	0.18	ug/L			08/07/19 16:14	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/07/19 16:14	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/07/19 16:14	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	5.6	T J	ug/L		3.14			08/07/19 16:14	1
Ethyl Acetate	4.6	T J N	ug/L		4.48	141-78-6		08/07/19 16:14	1
Furan, tetrahydro-	1.5	T J N	ug/L		4.66	109-99-9		08/07/19 16:14	1
Unknown	3.0	T J	ug/L		9.76			08/07/19 16:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	111		80 - 120		08/07/19 16:14	1
4-Bromofluorobenzene (Surr)	88		80 - 120		08/07/19 16:14	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-MW4-PDB-080219**

**Lab Sample ID: 480-157180-2**

Date Collected: 08/02/19 13:00

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/07/19 16:39	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/07/19 16:39	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/07/19 16:39	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/07/19 16:39	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/07/19 16:39	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/07/19 16:39	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/07/19 16:39	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/07/19 16:39	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/07/19 16:39	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 16:39	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/07/19 16:39	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/07/19 16:39	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/07/19 16:39	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/07/19 16:39	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/07/19 16:39	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 16:39	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/07/19 16:39	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 16:39	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/07/19 16:39	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/07/19 16:39	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/07/19 16:39	1
2-Hexanone	ND		5.0	1.0	ug/L			08/07/19 16:39	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/07/19 16:39	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/07/19 16:39	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/07/19 16:39	1
<b>Acetone</b>	<b>34 *</b>		5.0	1.0	ug/L			08/07/19 16:39	1
Acrylonitrile	ND		10	2.2	ug/L			08/07/19 16:39	1
Allyl chloride	ND		0.50	0.22	ug/L			08/07/19 16:39	1
Benzene	ND		0.50	0.13	ug/L			08/07/19 16:39	1
Bromobenzene	ND		0.50	0.13	ug/L			08/07/19 16:39	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/07/19 16:39	1
Bromoform	ND		0.50	0.13	ug/L			08/07/19 16:39	1
Bromomethane	ND		0.50	0.23	ug/L			08/07/19 16:39	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/07/19 16:39	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/07/19 16:39	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/07/19 16:39	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/07/19 16:39	1
Chloroethane	ND		0.50	0.20	ug/L			08/07/19 16:39	1
Chloroform	ND		0.50	0.14	ug/L			08/07/19 16:39	1
Chloromethane	ND		0.50	0.17	ug/L			08/07/19 16:39	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/07/19 16:39	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/07/19 16:39	1
Dibromomethane	ND		0.50	0.17	ug/L			08/07/19 16:39	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/07/19 16:39	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/07/19 16:39	1
Ethyl ether	ND		0.50	0.12	ug/L			08/07/19 16:39	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/07/19 16:39	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/07/19 16:39	1
Iodomethane	ND		0.50	0.15	ug/L			08/07/19 16:39	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-MW4-PDB-080219**

**Lab Sample ID: 480-157180-2**

Date Collected: 08/02/19 13:00

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/07/19 16:39	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/07/19 16:39	1
<b>Methylene Chloride</b>	<b>8.1</b>	<b>*</b>	2.5	0.99	ug/L			08/07/19 16:39	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/07/19 16:39	1
Naphthalene	ND		0.50	0.15	ug/L			08/07/19 16:39	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/07/19 16:39	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/07/19 16:39	1
o-Xylene	ND		0.50	0.12	ug/L			08/07/19 16:39	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/07/19 16:39	1
Styrene	ND		0.50	0.13	ug/L			08/07/19 16:39	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/07/19 16:39	1
<b>Tetrachloroethene</b>	<b>0.80</b>		0.50	0.20	ug/L			08/07/19 16:39	1
Toluene	ND		0.50	0.10	ug/L			08/07/19 16:39	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/07/19 16:39	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/07/19 16:39	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/07/19 16:39	1
Trichloroethene	ND		0.50	0.18	ug/L			08/07/19 16:39	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/07/19 16:39	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/07/19 16:39	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Isopropyl Alcohol	6.4	T J N	ug/L		3.13	67-63-0		08/07/19 16:39	1
Unknown	3.3	T J	ug/L		4.48			08/07/19 16:39	1
Unknown	2.2	T J	ug/L		9.76			08/07/19 16:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	111		80 - 120		08/07/19 16:39	1
4-Bromofluorobenzene (Surr)	92		80 - 120		08/07/19 16:39	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-MW5-PDB-080219**

**Lab Sample ID: 480-157180-3**

Date Collected: 08/02/19 09:30

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/07/19 17:05	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/07/19 17:05	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/07/19 17:05	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/07/19 17:05	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/07/19 17:05	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/07/19 17:05	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/07/19 17:05	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/07/19 17:05	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/07/19 17:05	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 17:05	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/07/19 17:05	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/07/19 17:05	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/07/19 17:05	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/07/19 17:05	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/07/19 17:05	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 17:05	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/07/19 17:05	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 17:05	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/07/19 17:05	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/07/19 17:05	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/07/19 17:05	1
2-Hexanone	ND		5.0	1.0	ug/L			08/07/19 17:05	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/07/19 17:05	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/07/19 17:05	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/07/19 17:05	1
<b>Acetone</b>	<b>22 *</b>		5.0	1.0	ug/L			08/07/19 17:05	1
Acrylonitrile	ND		10	2.2	ug/L			08/07/19 17:05	1
Allyl chloride	ND		0.50	0.22	ug/L			08/07/19 17:05	1
Benzene	ND		0.50	0.13	ug/L			08/07/19 17:05	1
Bromobenzene	ND		0.50	0.13	ug/L			08/07/19 17:05	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/07/19 17:05	1
Bromoform	ND		0.50	0.13	ug/L			08/07/19 17:05	1
Bromomethane	ND		0.50	0.23	ug/L			08/07/19 17:05	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/07/19 17:05	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/07/19 17:05	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/07/19 17:05	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/07/19 17:05	1
Chloroethane	ND		0.50	0.20	ug/L			08/07/19 17:05	1
Chloroform	ND		0.50	0.14	ug/L			08/07/19 17:05	1
Chloromethane	ND		0.50	0.17	ug/L			08/07/19 17:05	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/07/19 17:05	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/07/19 17:05	1
Dibromomethane	ND		0.50	0.17	ug/L			08/07/19 17:05	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/07/19 17:05	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/07/19 17:05	1
Ethyl ether	ND		0.50	0.12	ug/L			08/07/19 17:05	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/07/19 17:05	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/07/19 17:05	1
Iodomethane	ND		0.50	0.15	ug/L			08/07/19 17:05	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-MW5-PDB-080219**

**Lab Sample ID: 480-157180-3**

Date Collected: 08/02/19 09:30

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/07/19 17:05	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/07/19 17:05	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/07/19 17:05	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/07/19 17:05	1
Naphthalene	ND		0.50	0.15	ug/L			08/07/19 17:05	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/07/19 17:05	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/07/19 17:05	1
o-Xylene	ND		0.50	0.12	ug/L			08/07/19 17:05	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/07/19 17:05	1
Styrene	ND		0.50	0.13	ug/L			08/07/19 17:05	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/07/19 17:05	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/07/19 17:05	1
Toluene	ND		0.50	0.10	ug/L			08/07/19 17:05	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/07/19 17:05	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/07/19 17:05	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/07/19 17:05	1
<b>Trichloroethene</b>	<b>6.4</b>		0.50	0.18	ug/L			08/07/19 17:05	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/07/19 17:05	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/07/19 17:05	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	7.0	T J	ug/L		3.13			08/07/19 17:05	1
Ethyl Acetate	7.1	T J N	ug/L		4.48	141-78-6		08/07/19 17:05	1
Furan, tetrahydro-	1.9	T J N	ug/L		4.66	109-99-9		08/07/19 17:05	1
Unknown	6.0	T J	ug/L		9.76			08/07/19 17:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	115		80 - 120		08/07/19 17:05	1
4-Bromofluorobenzene (Surr)	91		80 - 120		08/07/19 17:05	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-MW6-PDB-080219**

**Lab Sample ID: 480-157180-4**

Date Collected: 08/02/19 12:00

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/07/19 17:30	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/07/19 17:30	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/07/19 17:30	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/07/19 17:30	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/07/19 17:30	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/07/19 17:30	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/07/19 17:30	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/07/19 17:30	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/07/19 17:30	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 17:30	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/07/19 17:30	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/07/19 17:30	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/07/19 17:30	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/07/19 17:30	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/07/19 17:30	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 17:30	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/07/19 17:30	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 17:30	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/07/19 17:30	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/07/19 17:30	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/07/19 17:30	1
2-Hexanone	ND		5.0	1.0	ug/L			08/07/19 17:30	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/07/19 17:30	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/07/19 17:30	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/07/19 17:30	1
<b>Acetone</b>	<b>46</b>	*	5.0	1.0	ug/L			08/07/19 17:30	1
Acrylonitrile	ND		10	2.2	ug/L			08/07/19 17:30	1
Allyl chloride	ND		0.50	0.22	ug/L			08/07/19 17:30	1
Benzene	ND		0.50	0.13	ug/L			08/07/19 17:30	1
Bromobenzene	ND		0.50	0.13	ug/L			08/07/19 17:30	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/07/19 17:30	1
Bromoform	ND		0.50	0.13	ug/L			08/07/19 17:30	1
Bromomethane	ND		0.50	0.23	ug/L			08/07/19 17:30	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/07/19 17:30	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/07/19 17:30	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/07/19 17:30	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/07/19 17:30	1
Chloroethane	ND		0.50	0.20	ug/L			08/07/19 17:30	1
Chloroform	ND		0.50	0.14	ug/L			08/07/19 17:30	1
Chloromethane	ND		0.50	0.17	ug/L			08/07/19 17:30	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/07/19 17:30	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/07/19 17:30	1
Dibromomethane	ND		0.50	0.17	ug/L			08/07/19 17:30	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/07/19 17:30	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/07/19 17:30	1
Ethyl ether	ND		0.50	0.12	ug/L			08/07/19 17:30	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/07/19 17:30	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/07/19 17:30	1
Iodomethane	ND		0.50	0.15	ug/L			08/07/19 17:30	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-MW6-PDB-080219**

**Lab Sample ID: 480-157180-4**

Date Collected: 08/02/19 12:00

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/07/19 17:30	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/07/19 17:30	1
<b>Methylene Chloride</b>	<b>7.5</b>	<b>*</b>	2.5	0.99	ug/L			08/07/19 17:30	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/07/19 17:30	1
Naphthalene	ND		0.50	0.15	ug/L			08/07/19 17:30	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/07/19 17:30	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/07/19 17:30	1
o-Xylene	ND		0.50	0.12	ug/L			08/07/19 17:30	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/07/19 17:30	1
Styrene	ND		0.50	0.13	ug/L			08/07/19 17:30	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/07/19 17:30	1
<b>Tetrachloroethene</b>	<b>0.80</b>		0.50	0.20	ug/L			08/07/19 17:30	1
Toluene	ND		0.50	0.10	ug/L			08/07/19 17:30	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/07/19 17:30	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/07/19 17:30	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/07/19 17:30	1
Trichloroethene	ND		0.50	0.18	ug/L			08/07/19 17:30	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/07/19 17:30	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/07/19 17:30	1
<b>Tentatively Identified Compound</b>	<b>Est. Result</b>	<b>Qualifier</b>	<b>Unit</b>	<b>D</b>	<b>RT</b>	<b>CAS No.</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Unknown	7.3	TJ	ug/L		3.13			08/07/19 17:30	1
Ethyl Acetate	5.1	TJN	ug/L		4.48	141-78-6		08/07/19 17:30	1
Unknown	5.0	TJ	ug/L		9.76			08/07/19 17:30	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichlorobenzene-d4	116		80 - 120					08/07/19 17:30	1
4-Bromofluorobenzene (Surr)	92		80 - 120					08/07/19 17:30	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-MW7-PDB-080219**

**Lab Sample ID: 480-157180-5**

Date Collected: 08/02/19 12:30

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/07/19 17:55	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/07/19 17:55	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/07/19 17:55	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/07/19 17:55	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/07/19 17:55	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/07/19 17:55	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/07/19 17:55	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/07/19 17:55	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/07/19 17:55	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 17:55	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/07/19 17:55	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/07/19 17:55	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/07/19 17:55	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/07/19 17:55	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/07/19 17:55	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 17:55	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/07/19 17:55	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 17:55	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/07/19 17:55	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/07/19 17:55	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/07/19 17:55	1
2-Hexanone	ND		5.0	1.0	ug/L			08/07/19 17:55	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/07/19 17:55	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/07/19 17:55	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/07/19 17:55	1
<b>Acetone</b>	<b>31</b>	*	5.0	1.0	ug/L			08/07/19 17:55	1
Acrylonitrile	ND		10	2.2	ug/L			08/07/19 17:55	1
Allyl chloride	ND		0.50	0.22	ug/L			08/07/19 17:55	1
Benzene	ND		0.50	0.13	ug/L			08/07/19 17:55	1
Bromobenzene	ND		0.50	0.13	ug/L			08/07/19 17:55	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/07/19 17:55	1
Bromoform	ND		0.50	0.13	ug/L			08/07/19 17:55	1
Bromomethane	ND		0.50	0.23	ug/L			08/07/19 17:55	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/07/19 17:55	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/07/19 17:55	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/07/19 17:55	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/07/19 17:55	1
Chloroethane	ND		0.50	0.20	ug/L			08/07/19 17:55	1
Chloroform	ND		0.50	0.14	ug/L			08/07/19 17:55	1
Chloromethane	ND		0.50	0.17	ug/L			08/07/19 17:55	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/07/19 17:55	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/07/19 17:55	1
Dibromomethane	ND		0.50	0.17	ug/L			08/07/19 17:55	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/07/19 17:55	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/07/19 17:55	1
Ethyl ether	ND		0.50	0.12	ug/L			08/07/19 17:55	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/07/19 17:55	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/07/19 17:55	1
Iodomethane	ND		0.50	0.15	ug/L			08/07/19 17:55	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-MW7-PDB-080219**

**Lab Sample ID: 480-157180-5**

Date Collected: 08/02/19 12:30

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/07/19 17:55	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/07/19 17:55	1
<b>Methylene Chloride</b>	<b>7.5</b>	<b>*</b>	2.5	0.99	ug/L			08/07/19 17:55	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/07/19 17:55	1
Naphthalene	ND		0.50	0.15	ug/L			08/07/19 17:55	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/07/19 17:55	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/07/19 17:55	1
o-Xylene	ND		0.50	0.12	ug/L			08/07/19 17:55	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/07/19 17:55	1
Styrene	ND		0.50	0.13	ug/L			08/07/19 17:55	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/07/19 17:55	1
<b>Tetrachloroethene</b>	<b>0.61</b>		0.50	0.20	ug/L			08/07/19 17:55	1
Toluene	ND		0.50	0.10	ug/L			08/07/19 17:55	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/07/19 17:55	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/07/19 17:55	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/07/19 17:55	1
Trichloroethene	ND		0.50	0.18	ug/L			08/07/19 17:55	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/07/19 17:55	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/07/19 17:55	1
<b>Tentatively Identified Compound</b>	<b>Est. Result</b>	<b>Qualifier</b>	<b>Unit</b>	<b>D</b>	<b>RT</b>	<b>CAS No.</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Unknown	7.7	TJ	ug/L		3.14			08/07/19 17:55	1
Ethyl Acetate	3.8	TJN	ug/L		4.48	141-78-6		08/07/19 17:55	1
Unknown	3.1	TJ	ug/L		9.76			08/07/19 17:55	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichlorobenzene-d4	113		80 - 120					08/07/19 17:55	1
4-Bromofluorobenzene (Surr)	90		80 - 120					08/07/19 17:55	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-MW9D-PDB-080219**

**Lab Sample ID: 480-157180-6**

Date Collected: 08/02/19 11:30

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/07/19 18:20	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/07/19 18:20	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/07/19 18:20	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/07/19 18:20	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/07/19 18:20	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/07/19 18:20	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/07/19 18:20	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/07/19 18:20	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/07/19 18:20	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 18:20	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/07/19 18:20	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/07/19 18:20	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/07/19 18:20	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/07/19 18:20	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/07/19 18:20	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 18:20	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/07/19 18:20	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 18:20	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/07/19 18:20	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/07/19 18:20	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/07/19 18:20	1
2-Hexanone	ND		5.0	1.0	ug/L			08/07/19 18:20	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/07/19 18:20	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/07/19 18:20	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/07/19 18:20	1
<b>Acetone</b>	<b>36 *</b>		5.0	1.0	ug/L			08/07/19 18:20	1
Acrylonitrile	ND		10	2.2	ug/L			08/07/19 18:20	1
Allyl chloride	ND		0.50	0.22	ug/L			08/07/19 18:20	1
Benzene	ND		0.50	0.13	ug/L			08/07/19 18:20	1
Bromobenzene	ND		0.50	0.13	ug/L			08/07/19 18:20	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/07/19 18:20	1
Bromoform	ND		0.50	0.13	ug/L			08/07/19 18:20	1
Bromomethane	ND		0.50	0.23	ug/L			08/07/19 18:20	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/07/19 18:20	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/07/19 18:20	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/07/19 18:20	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/07/19 18:20	1
Chloroethane	ND		0.50	0.20	ug/L			08/07/19 18:20	1
Chloroform	ND		0.50	0.14	ug/L			08/07/19 18:20	1
Chloromethane	ND		0.50	0.17	ug/L			08/07/19 18:20	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/07/19 18:20	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/07/19 18:20	1
Dibromomethane	ND		0.50	0.17	ug/L			08/07/19 18:20	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/07/19 18:20	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/07/19 18:20	1
Ethyl ether	ND		0.50	0.12	ug/L			08/07/19 18:20	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/07/19 18:20	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/07/19 18:20	1
Iodomethane	ND		0.50	0.15	ug/L			08/07/19 18:20	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-MW9D-PDB-080219**

**Lab Sample ID: 480-157180-6**

Date Collected: 08/02/19 11:30

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/07/19 18:20	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/07/19 18:20	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/07/19 18:20	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/07/19 18:20	1
Naphthalene	ND		0.50	0.15	ug/L			08/07/19 18:20	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/07/19 18:20	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/07/19 18:20	1
o-Xylene	ND		0.50	0.12	ug/L			08/07/19 18:20	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/07/19 18:20	1
Styrene	ND		0.50	0.13	ug/L			08/07/19 18:20	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/07/19 18:20	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/07/19 18:20	1
Toluene	ND		0.50	0.10	ug/L			08/07/19 18:20	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/07/19 18:20	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/07/19 18:20	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/07/19 18:20	1
<b>Trichloroethene</b>	<b>0.71</b>		0.50	0.18	ug/L			08/07/19 18:20	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/07/19 18:20	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/07/19 18:20	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	8.9	TJ	ug/L		3.14			08/07/19 18:20	1
Ethyl Acetate	6.4	TJN	ug/L		4.48	141-78-6		08/07/19 18:20	1
Furan, tetrahydro-	1.5	TJN	ug/L		4.66	109-99-9		08/07/19 18:20	1
Unknown	3.9	TJ	ug/L		9.76			08/07/19 18:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	111		80 - 120		08/07/19 18:20	1
4-Bromofluorobenzene (Surr)	91		80 - 120		08/07/19 18:20	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-MW10-PDB-080219**

**Lab Sample ID: 480-157180-7**

Date Collected: 08/02/19 11:00

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/07/19 18:46	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/07/19 18:46	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/07/19 18:46	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/07/19 18:46	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/07/19 18:46	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/07/19 18:46	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/07/19 18:46	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/07/19 18:46	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/07/19 18:46	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 18:46	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/07/19 18:46	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/07/19 18:46	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/07/19 18:46	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/07/19 18:46	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/07/19 18:46	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 18:46	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/07/19 18:46	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 18:46	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/07/19 18:46	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/07/19 18:46	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/07/19 18:46	1
2-Hexanone	ND		5.0	1.0	ug/L			08/07/19 18:46	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/07/19 18:46	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/07/19 18:46	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/07/19 18:46	1
<b>Acetone</b>	<b>36 *</b>		5.0	1.0	ug/L			08/07/19 18:46	1
Acrylonitrile	ND		10	2.2	ug/L			08/07/19 18:46	1
Allyl chloride	ND		0.50	0.22	ug/L			08/07/19 18:46	1
Benzene	ND		0.50	0.13	ug/L			08/07/19 18:46	1
Bromobenzene	ND		0.50	0.13	ug/L			08/07/19 18:46	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/07/19 18:46	1
Bromoform	ND		0.50	0.13	ug/L			08/07/19 18:46	1
Bromomethane	ND		0.50	0.23	ug/L			08/07/19 18:46	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/07/19 18:46	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/07/19 18:46	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/07/19 18:46	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/07/19 18:46	1
Chloroethane	ND		0.50	0.20	ug/L			08/07/19 18:46	1
Chloroform	ND		0.50	0.14	ug/L			08/07/19 18:46	1
Chloromethane	ND		0.50	0.17	ug/L			08/07/19 18:46	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/07/19 18:46	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/07/19 18:46	1
Dibromomethane	ND		0.50	0.17	ug/L			08/07/19 18:46	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/07/19 18:46	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/07/19 18:46	1
Ethyl ether	ND		0.50	0.12	ug/L			08/07/19 18:46	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/07/19 18:46	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/07/19 18:46	1
Iodomethane	ND		0.50	0.15	ug/L			08/07/19 18:46	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-MW10-PDB-080219**

**Lab Sample ID: 480-157180-7**

Date Collected: 08/02/19 11:00

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/07/19 18:46	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/07/19 18:46	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/07/19 18:46	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/07/19 18:46	1
Naphthalene	ND		0.50	0.15	ug/L			08/07/19 18:46	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/07/19 18:46	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/07/19 18:46	1
o-Xylene	ND		0.50	0.12	ug/L			08/07/19 18:46	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/07/19 18:46	1
Styrene	ND		0.50	0.13	ug/L			08/07/19 18:46	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/07/19 18:46	1
<b>Tetrachloroethene</b>	<b>0.44</b>	<b>J</b>	0.50	0.20	ug/L			08/07/19 18:46	1
Toluene	ND		0.50	0.10	ug/L			08/07/19 18:46	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/07/19 18:46	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/07/19 18:46	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/07/19 18:46	1
<b>Trichloroethene</b>	<b>10</b>		0.50	0.18	ug/L			08/07/19 18:46	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/07/19 18:46	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/07/19 18:46	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	6.1	TJ	ug/L		3.14			08/07/19 18:46	1
Ethyl Acetate	5.2	TJN	ug/L		4.48	141-78-6		08/07/19 18:46	1
Furan, tetrahydro-	1.4	TJN	ug/L		4.66	109-99-9		08/07/19 18:46	1
Unknown	3.6	TJ	ug/L		9.76			08/07/19 18:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	115		80 - 120		08/07/19 18:46	1
4-Bromofluorobenzene (Surr)	93		80 - 120		08/07/19 18:46	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-MW11D-PDB-080219**

**Lab Sample ID: 480-157180-8**

Date Collected: 08/02/19 10:00

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/07/19 19:11	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/07/19 19:11	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/07/19 19:11	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/07/19 19:11	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/07/19 19:11	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/07/19 19:11	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/07/19 19:11	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/07/19 19:11	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/07/19 19:11	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 19:11	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/07/19 19:11	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/07/19 19:11	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/07/19 19:11	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/07/19 19:11	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/07/19 19:11	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 19:11	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/07/19 19:11	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 19:11	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/07/19 19:11	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/07/19 19:11	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/07/19 19:11	1
2-Hexanone	ND		5.0	1.0	ug/L			08/07/19 19:11	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/07/19 19:11	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/07/19 19:11	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/07/19 19:11	1
<b>Acetone</b>	<b>42 *</b>		5.0	1.0	ug/L			08/07/19 19:11	1
Acrylonitrile	ND		10	2.2	ug/L			08/07/19 19:11	1
Allyl chloride	ND		0.50	0.22	ug/L			08/07/19 19:11	1
Benzene	ND		0.50	0.13	ug/L			08/07/19 19:11	1
Bromobenzene	ND		0.50	0.13	ug/L			08/07/19 19:11	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/07/19 19:11	1
Bromoform	ND		0.50	0.13	ug/L			08/07/19 19:11	1
Bromomethane	ND		0.50	0.23	ug/L			08/07/19 19:11	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/07/19 19:11	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/07/19 19:11	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/07/19 19:11	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/07/19 19:11	1
Chloroethane	ND		0.50	0.20	ug/L			08/07/19 19:11	1
Chloroform	ND		0.50	0.14	ug/L			08/07/19 19:11	1
Chloromethane	ND		0.50	0.17	ug/L			08/07/19 19:11	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/07/19 19:11	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/07/19 19:11	1
Dibromomethane	ND		0.50	0.17	ug/L			08/07/19 19:11	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/07/19 19:11	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/07/19 19:11	1
Ethyl ether	ND		0.50	0.12	ug/L			08/07/19 19:11	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/07/19 19:11	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/07/19 19:11	1
Iodomethane	ND		0.50	0.15	ug/L			08/07/19 19:11	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-MW11D-PDB-080219**

**Lab Sample ID: 480-157180-8**

Date Collected: 08/02/19 10:00

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/07/19 19:11	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/07/19 19:11	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/07/19 19:11	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/07/19 19:11	1
Naphthalene	ND		0.50	0.15	ug/L			08/07/19 19:11	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/07/19 19:11	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/07/19 19:11	1
o-Xylene	ND		0.50	0.12	ug/L			08/07/19 19:11	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/07/19 19:11	1
Styrene	ND		0.50	0.13	ug/L			08/07/19 19:11	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/07/19 19:11	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/07/19 19:11	1
Toluene	ND		0.50	0.10	ug/L			08/07/19 19:11	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/07/19 19:11	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/07/19 19:11	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/07/19 19:11	1
Trichloroethene	ND		0.50	0.18	ug/L			08/07/19 19:11	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/07/19 19:11	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/07/19 19:11	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Isopropyl Alcohol	5.9	T J N	ug/L		3.13	67-63-0		08/07/19 19:11	1
Unknown	5.9	T J	ug/L		4.48			08/07/19 19:11	1
Furan, tetrahydro-	1.6	T J N	ug/L		4.66	109-99-9		08/07/19 19:11	1
Unknown	5.2	T J	ug/L		9.76			08/07/19 19:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	116		80 - 120		08/07/19 19:11	1
4-Bromofluorobenzene (Surr)	91		80 - 120		08/07/19 19:11	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-MW12-PDB-080219**

**Lab Sample ID: 480-157180-9**

Date Collected: 08/02/19 10:30

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/07/19 19:36	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/07/19 19:36	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/07/19 19:36	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/07/19 19:36	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/07/19 19:36	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/07/19 19:36	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/07/19 19:36	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/07/19 19:36	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/07/19 19:36	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 19:36	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/07/19 19:36	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/07/19 19:36	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/07/19 19:36	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/07/19 19:36	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/07/19 19:36	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 19:36	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/07/19 19:36	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 19:36	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/07/19 19:36	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/07/19 19:36	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/07/19 19:36	1
2-Hexanone	ND		5.0	1.0	ug/L			08/07/19 19:36	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/07/19 19:36	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/07/19 19:36	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/07/19 19:36	1
<b>Acetone</b>	<b>40</b>	<b>*</b>	5.0	1.0	ug/L			08/07/19 19:36	1
Acrylonitrile	ND		10	2.2	ug/L			08/07/19 19:36	1
Allyl chloride	ND		0.50	0.22	ug/L			08/07/19 19:36	1
Benzene	ND		0.50	0.13	ug/L			08/07/19 19:36	1
Bromobenzene	ND		0.50	0.13	ug/L			08/07/19 19:36	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/07/19 19:36	1
Bromoform	ND		0.50	0.13	ug/L			08/07/19 19:36	1
Bromomethane	ND		0.50	0.23	ug/L			08/07/19 19:36	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/07/19 19:36	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/07/19 19:36	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/07/19 19:36	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/07/19 19:36	1
Chloroethane	ND		0.50	0.20	ug/L			08/07/19 19:36	1
Chloroform	ND		0.50	0.14	ug/L			08/07/19 19:36	1
Chloromethane	ND		0.50	0.17	ug/L			08/07/19 19:36	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/07/19 19:36	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/07/19 19:36	1
Dibromomethane	ND		0.50	0.17	ug/L			08/07/19 19:36	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/07/19 19:36	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/07/19 19:36	1
Ethyl ether	ND		0.50	0.12	ug/L			08/07/19 19:36	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/07/19 19:36	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/07/19 19:36	1
Iodomethane	ND		0.50	0.15	ug/L			08/07/19 19:36	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-MW12-PDB-080219**

**Lab Sample ID: 480-157180-9**

Date Collected: 08/02/19 10:30

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/07/19 19:36	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/07/19 19:36	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/07/19 19:36	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/07/19 19:36	1
Naphthalene	ND		0.50	0.15	ug/L			08/07/19 19:36	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/07/19 19:36	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/07/19 19:36	1
o-Xylene	ND		0.50	0.12	ug/L			08/07/19 19:36	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/07/19 19:36	1
Styrene	ND		0.50	0.13	ug/L			08/07/19 19:36	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/07/19 19:36	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/07/19 19:36	1
Toluene	ND		0.50	0.10	ug/L			08/07/19 19:36	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/07/19 19:36	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/07/19 19:36	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/07/19 19:36	1
<b>Trichloroethene</b>	<b>2.1</b>		0.50	0.18	ug/L			08/07/19 19:36	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/07/19 19:36	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/07/19 19:36	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Isopropyl Alcohol	7.9	T J N	ug/L		3.13	67-63-0		08/07/19 19:36	1
Ethyl Acetate	6.1	T J N	ug/L		4.48	141-78-6		08/07/19 19:36	1
Furan, tetrahydro-	1.7	T J N	ug/L		4.66	109-99-9		08/07/19 19:36	1
Unknown	4.2	T J	ug/L		9.76			08/07/19 19:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	115		80 - 120		08/07/19 19:36	1
4-Bromofluorobenzene (Surr)	88		80 - 120		08/07/19 19:36	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-PZ20D-PDB-080219**

**Lab Sample ID: 480-157180-10**

Date Collected: 08/02/19 14:00

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/08/19 09:45	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/08/19 09:45	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/19 09:45	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/08/19 09:45	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/08/19 09:45	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/08/19 09:45	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/08/19 09:45	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/08/19 09:45	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/08/19 09:45	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/08/19 09:45	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/08/19 09:45	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/08/19 09:45	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/08/19 09:45	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/08/19 09:45	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/08/19 09:45	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/08/19 09:45	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/08/19 09:45	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/08/19 09:45	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/08/19 09:45	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/08/19 09:45	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/08/19 09:45	1
2-Hexanone	ND		5.0	1.0	ug/L			08/08/19 09:45	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/08/19 09:45	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/08/19 09:45	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/08/19 09:45	1
<b>Acetone</b>	<b>41</b>	*	5.0	1.0	ug/L			08/08/19 09:45	1
Acrylonitrile	ND		10	2.2	ug/L			08/08/19 09:45	1
Allyl chloride	ND		0.50	0.22	ug/L			08/08/19 09:45	1
Benzene	ND		0.50	0.13	ug/L			08/08/19 09:45	1
Bromobenzene	ND		0.50	0.13	ug/L			08/08/19 09:45	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/08/19 09:45	1
Bromoform	ND		0.50	0.13	ug/L			08/08/19 09:45	1
Bromomethane	ND		0.50	0.23	ug/L			08/08/19 09:45	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/08/19 09:45	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/08/19 09:45	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/08/19 09:45	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/08/19 09:45	1
Chloroethane	ND		0.50	0.20	ug/L			08/08/19 09:45	1
Chloroform	ND		0.50	0.14	ug/L			08/08/19 09:45	1
Chloromethane	ND		0.50	0.17	ug/L			08/08/19 09:45	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/08/19 09:45	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/08/19 09:45	1
Dibromomethane	ND		0.50	0.17	ug/L			08/08/19 09:45	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/08/19 09:45	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/08/19 09:45	1
Ethyl ether	ND		0.50	0.12	ug/L			08/08/19 09:45	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/08/19 09:45	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/08/19 09:45	1
Iodomethane	ND		0.50	0.15	ug/L			08/08/19 09:45	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-PZ20D-PDB-080219**

**Lab Sample ID: 480-157180-10**

Date Collected: 08/02/19 14:00

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/08/19 09:45	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/08/19 09:45	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/08/19 09:45	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/08/19 09:45	1
Naphthalene	ND		0.50	0.15	ug/L			08/08/19 09:45	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/08/19 09:45	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/08/19 09:45	1
o-Xylene	ND		0.50	0.12	ug/L			08/08/19 09:45	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/08/19 09:45	1
Styrene	ND		0.50	0.13	ug/L			08/08/19 09:45	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/08/19 09:45	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/08/19 09:45	1
Toluene	ND		0.50	0.10	ug/L			08/08/19 09:45	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/08/19 09:45	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/08/19 09:45	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/08/19 09:45	1
Trichloroethene	ND		0.50	0.18	ug/L			08/08/19 09:45	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/08/19 09:45	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/08/19 09:45	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	7.9	T J	ug/L		3.14			08/08/19 09:45	1
Ethyl Acetate	3.5	T J N	ug/L		4.48	141-78-6		08/08/19 09:45	1
Furan, tetrahydro-	1.6	T J N	ug/L		4.67	109-99-9		08/08/19 09:45	1
Unknown	2.7	T J	ug/L		9.77			08/08/19 09:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	113		80 - 120		08/08/19 09:45	1
4-Bromofluorobenzene (Surr)	90		80 - 120		08/08/19 09:45	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-GTA-PZ47D-PDB-080219**

**Lab Sample ID: 480-157180-11**

Date Collected: 08/02/19 14:30

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/08/19 10:11	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/08/19 10:11	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/19 10:11	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/08/19 10:11	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/08/19 10:11	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/08/19 10:11	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/08/19 10:11	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/08/19 10:11	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/08/19 10:11	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/08/19 10:11	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/08/19 10:11	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/08/19 10:11	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/08/19 10:11	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/08/19 10:11	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/08/19 10:11	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/08/19 10:11	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/08/19 10:11	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/08/19 10:11	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/08/19 10:11	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/08/19 10:11	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/08/19 10:11	1
2-Hexanone	ND		5.0	1.0	ug/L			08/08/19 10:11	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/08/19 10:11	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/08/19 10:11	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/08/19 10:11	1
<b>Acetone</b>	<b>44 *</b>		5.0	1.0	ug/L			08/08/19 10:11	1
Acrylonitrile	ND		10	2.2	ug/L			08/08/19 10:11	1
Allyl chloride	ND		0.50	0.22	ug/L			08/08/19 10:11	1
Benzene	ND		0.50	0.13	ug/L			08/08/19 10:11	1
Bromobenzene	ND		0.50	0.13	ug/L			08/08/19 10:11	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/08/19 10:11	1
Bromoform	ND		0.50	0.13	ug/L			08/08/19 10:11	1
Bromomethane	ND		0.50	0.23	ug/L			08/08/19 10:11	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/08/19 10:11	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/08/19 10:11	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/08/19 10:11	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/08/19 10:11	1
Chloroethane	ND		0.50	0.20	ug/L			08/08/19 10:11	1
Chloroform	ND		0.50	0.14	ug/L			08/08/19 10:11	1
Chloromethane	ND		0.50	0.17	ug/L			08/08/19 10:11	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/08/19 10:11	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/08/19 10:11	1
Dibromomethane	ND		0.50	0.17	ug/L			08/08/19 10:11	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/08/19 10:11	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/08/19 10:11	1
Ethyl ether	ND		0.50	0.12	ug/L			08/08/19 10:11	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/08/19 10:11	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/08/19 10:11	1
Iodomethane	ND		0.50	0.15	ug/L			08/08/19 10:11	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-GTA-PZ47D-PDB-080219**

**Lab Sample ID: 480-157180-11**

Date Collected: 08/02/19 14:30

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/08/19 10:11	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/08/19 10:11	1
<b>Methylene Chloride</b>	<b>20</b>	*	2.5	0.99	ug/L			08/08/19 10:11	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/08/19 10:11	1
Naphthalene	ND		0.50	0.15	ug/L			08/08/19 10:11	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/08/19 10:11	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/08/19 10:11	1
o-Xylene	ND		0.50	0.12	ug/L			08/08/19 10:11	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/08/19 10:11	1
Styrene	ND		0.50	0.13	ug/L			08/08/19 10:11	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/08/19 10:11	1
<b>Tetrachloroethene</b>	<b>2.9</b>		0.50	0.20	ug/L			08/08/19 10:11	1
Toluene	ND		0.50	0.10	ug/L			08/08/19 10:11	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/08/19 10:11	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/08/19 10:11	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/08/19 10:11	1
<b>Trichloroethene</b>	<b>2.1</b>		0.50	0.18	ug/L			08/08/19 10:11	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/08/19 10:11	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/08/19 10:11	1
<b>Tentatively Identified Compound</b>	<b>Est. Result</b>	<b>Qualifier</b>	<b>Unit</b>	<b>D</b>	<b>RT</b>	<b>CAS No.</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Isopropyl Alcohol	11	T J N	ug/L		3.13	67-63-0		08/08/19 10:11	1
Ethyl Acetate	4.2	T J N	ug/L		4.48	141-78-6		08/08/19 10:11	1
Unknown	3.2	T J	ug/L		9.77			08/08/19 10:11	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichlorobenzene-d4	115		80 - 120					08/08/19 10:11	1
4-Bromofluorobenzene (Surr)	88		80 - 120					08/08/19 10:11	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-GTA-PZ48-PDB-080219**

**Lab Sample ID: 480-157180-12**

Date Collected: 08/02/19 14:45

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/08/19 10:36	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/08/19 10:36	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/19 10:36	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/08/19 10:36	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/08/19 10:36	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/08/19 10:36	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/08/19 10:36	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/08/19 10:36	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/08/19 10:36	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/08/19 10:36	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/08/19 10:36	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/08/19 10:36	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/08/19 10:36	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/08/19 10:36	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/08/19 10:36	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/08/19 10:36	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/08/19 10:36	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/08/19 10:36	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/08/19 10:36	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/08/19 10:36	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/08/19 10:36	1
2-Hexanone	ND		5.0	1.0	ug/L			08/08/19 10:36	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/08/19 10:36	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/08/19 10:36	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/08/19 10:36	1
<b>Acetone</b>	<b>41</b>	*	5.0	1.0	ug/L			08/08/19 10:36	1
Acrylonitrile	ND		10	2.2	ug/L			08/08/19 10:36	1
Allyl chloride	ND		0.50	0.22	ug/L			08/08/19 10:36	1
Benzene	ND		0.50	0.13	ug/L			08/08/19 10:36	1
Bromobenzene	ND		0.50	0.13	ug/L			08/08/19 10:36	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/08/19 10:36	1
Bromoform	ND		0.50	0.13	ug/L			08/08/19 10:36	1
Bromomethane	ND		0.50	0.23	ug/L			08/08/19 10:36	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/08/19 10:36	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/08/19 10:36	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/08/19 10:36	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/08/19 10:36	1
Chloroethane	ND		0.50	0.20	ug/L			08/08/19 10:36	1
Chloroform	ND		0.50	0.14	ug/L			08/08/19 10:36	1
Chloromethane	ND		0.50	0.17	ug/L			08/08/19 10:36	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/08/19 10:36	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/08/19 10:36	1
Dibromomethane	ND		0.50	0.17	ug/L			08/08/19 10:36	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/08/19 10:36	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/08/19 10:36	1
Ethyl ether	ND		0.50	0.12	ug/L			08/08/19 10:36	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/08/19 10:36	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/08/19 10:36	1
Iodomethane	ND		0.50	0.15	ug/L			08/08/19 10:36	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-GTA-PZ48-PDB-080219**

**Lab Sample ID: 480-157180-12**

Date Collected: 08/02/19 14:45

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/08/19 10:36	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/08/19 10:36	1
<b>Methylene Chloride</b>	<b>5.2</b>	<b>*</b>	2.5	0.99	ug/L			08/08/19 10:36	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/08/19 10:36	1
Naphthalene	ND		0.50	0.15	ug/L			08/08/19 10:36	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/08/19 10:36	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/08/19 10:36	1
o-Xylene	ND		0.50	0.12	ug/L			08/08/19 10:36	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/08/19 10:36	1
Styrene	ND		0.50	0.13	ug/L			08/08/19 10:36	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/08/19 10:36	1
<b>Tetrachloroethene</b>	<b>0.28</b>	<b>J</b>	0.50	0.20	ug/L			08/08/19 10:36	1
Toluene	ND		0.50	0.10	ug/L			08/08/19 10:36	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/08/19 10:36	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/08/19 10:36	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/08/19 10:36	1
<b>Trichloroethene</b>	<b>1.5</b>		0.50	0.18	ug/L			08/08/19 10:36	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/08/19 10:36	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/08/19 10:36	1
<b>Tentatively Identified Compound</b>	<b>Est. Result</b>	<b>Qualifier</b>	<b>Unit</b>	<b>D</b>	<b>RT</b>	<b>CAS No.</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Unknown	7.0	TJ	ug/L		3.14			08/08/19 10:36	1
Ethyl Acetate	3.5	TJN	ug/L		4.48	141-78-6		08/08/19 10:36	1
Unknown	1.9	TJ	ug/L		9.77			08/08/19 10:36	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichlorobenzene-d4	111		80 - 120					08/08/19 10:36	1
4-Bromofluorobenzene (Surr)	91		80 - 120					08/08/19 10:36	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: FIELD BLANK-080219**

**Lab Sample ID: 480-157180-13**

Date Collected: 08/02/19 15:15

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/08/19 11:01	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/08/19 11:01	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/19 11:01	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/08/19 11:01	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/08/19 11:01	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/08/19 11:01	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/08/19 11:01	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/08/19 11:01	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/08/19 11:01	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/08/19 11:01	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/08/19 11:01	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/08/19 11:01	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/08/19 11:01	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/08/19 11:01	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/08/19 11:01	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/08/19 11:01	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/08/19 11:01	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/08/19 11:01	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/08/19 11:01	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/08/19 11:01	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/08/19 11:01	1
2-Hexanone	ND		5.0	1.0	ug/L			08/08/19 11:01	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/08/19 11:01	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/08/19 11:01	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/08/19 11:01	1
<b>Acetone</b>	<b>20</b>	<b>*</b>	5.0	1.0	ug/L			08/08/19 11:01	1
Acrylonitrile	ND		10	2.2	ug/L			08/08/19 11:01	1
Allyl chloride	ND		0.50	0.22	ug/L			08/08/19 11:01	1
Benzene	ND		0.50	0.13	ug/L			08/08/19 11:01	1
Bromobenzene	ND		0.50	0.13	ug/L			08/08/19 11:01	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/08/19 11:01	1
Bromoform	ND		0.50	0.13	ug/L			08/08/19 11:01	1
Bromomethane	ND		0.50	0.23	ug/L			08/08/19 11:01	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/08/19 11:01	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/08/19 11:01	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/08/19 11:01	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/08/19 11:01	1
Chloroethane	ND		0.50	0.20	ug/L			08/08/19 11:01	1
Chloroform	ND		0.50	0.14	ug/L			08/08/19 11:01	1
Chloromethane	ND		0.50	0.17	ug/L			08/08/19 11:01	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/08/19 11:01	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/08/19 11:01	1
Dibromomethane	ND		0.50	0.17	ug/L			08/08/19 11:01	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/08/19 11:01	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/08/19 11:01	1
Ethyl ether	ND		0.50	0.12	ug/L			08/08/19 11:01	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/08/19 11:01	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/08/19 11:01	1
Iodomethane	ND		0.50	0.15	ug/L			08/08/19 11:01	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: FIELD BLANK-080219**

**Lab Sample ID: 480-157180-13**

Date Collected: 08/02/19 15:15

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/08/19 11:01	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/08/19 11:01	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/08/19 11:01	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/08/19 11:01	1
Naphthalene	ND		0.50	0.15	ug/L			08/08/19 11:01	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/08/19 11:01	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/08/19 11:01	1
o-Xylene	ND		0.50	0.12	ug/L			08/08/19 11:01	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/08/19 11:01	1
Styrene	ND		0.50	0.13	ug/L			08/08/19 11:01	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/08/19 11:01	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/08/19 11:01	1
Toluene	ND		0.50	0.10	ug/L			08/08/19 11:01	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/08/19 11:01	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/08/19 11:01	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/08/19 11:01	1
Trichloroethene	ND		0.50	0.18	ug/L			08/08/19 11:01	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/08/19 11:01	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/08/19 11:01	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	5.1	TJ	ug/L		3.13			08/08/19 11:01	1
Ethyl Acetate	3.2	TJN	ug/L		4.48	141-78-6		08/08/19 11:01	1
Furan, tetrahydro-	0.54	TJN	ug/L		4.67	109-99-9		08/08/19 11:01	1
Unknown	1.3	TJ	ug/L		9.76			08/08/19 11:01	1
Unknown	0.53	TJ	ug/L		10.46			08/08/19 11:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	110		80 - 120		08/08/19 11:01	1
4-Bromofluorobenzene (Surr)	90		80 - 120		08/08/19 11:01	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: TRIP BLANK-080219**

**Lab Sample ID: 480-157180-14**

Date Collected: 08/02/19 00:00

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/08/19 11:27	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/08/19 11:27	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/19 11:27	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/08/19 11:27	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/08/19 11:27	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/08/19 11:27	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/08/19 11:27	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/08/19 11:27	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/08/19 11:27	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/08/19 11:27	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/08/19 11:27	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/08/19 11:27	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/08/19 11:27	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/08/19 11:27	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/08/19 11:27	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/08/19 11:27	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/08/19 11:27	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/08/19 11:27	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/08/19 11:27	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/08/19 11:27	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/08/19 11:27	1
2-Hexanone	ND		5.0	1.0	ug/L			08/08/19 11:27	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/08/19 11:27	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/08/19 11:27	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/08/19 11:27	1
Acetone	ND *		5.0	1.0	ug/L			08/08/19 11:27	1
Acrylonitrile	ND		10	2.2	ug/L			08/08/19 11:27	1
Allyl chloride	ND		0.50	0.22	ug/L			08/08/19 11:27	1
Benzene	ND		0.50	0.13	ug/L			08/08/19 11:27	1
Bromobenzene	ND		0.50	0.13	ug/L			08/08/19 11:27	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/08/19 11:27	1
Bromoform	ND		0.50	0.13	ug/L			08/08/19 11:27	1
Bromomethane	ND		0.50	0.23	ug/L			08/08/19 11:27	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/08/19 11:27	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/08/19 11:27	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/08/19 11:27	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/08/19 11:27	1
Chloroethane	ND		0.50	0.20	ug/L			08/08/19 11:27	1
Chloroform	ND		0.50	0.14	ug/L			08/08/19 11:27	1
Chloromethane	ND		0.50	0.17	ug/L			08/08/19 11:27	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/08/19 11:27	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/08/19 11:27	1
Dibromomethane	ND		0.50	0.17	ug/L			08/08/19 11:27	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/08/19 11:27	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/08/19 11:27	1
Ethyl ether	ND		0.50	0.12	ug/L			08/08/19 11:27	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/08/19 11:27	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/08/19 11:27	1
Iodomethane	ND		0.50	0.15	ug/L			08/08/19 11:27	1

# Client Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: TRIP BLANK-080219**

**Lab Sample ID: 480-157180-14**

Date Collected: 08/02/19 00:00

Matrix: Water

Date Received: 08/02/19 17:41

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		0.50	0.16	ug/L			08/08/19 11:27	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/08/19 11:27	1
Methylene Chloride	ND	*	2.5	0.99	ug/L			08/08/19 11:27	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/08/19 11:27	1
Naphthalene	ND		0.50	0.15	ug/L			08/08/19 11:27	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/08/19 11:27	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/08/19 11:27	1
o-Xylene	ND		0.50	0.12	ug/L			08/08/19 11:27	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/08/19 11:27	1
Styrene	ND		0.50	0.13	ug/L			08/08/19 11:27	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/08/19 11:27	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/08/19 11:27	1
Toluene	ND		0.50	0.10	ug/L			08/08/19 11:27	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/08/19 11:27	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/08/19 11:27	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/08/19 11:27	1
Trichloroethene	ND		0.50	0.18	ug/L			08/08/19 11:27	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/08/19 11:27	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/08/19 11:27	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	0.55	TJ	ug/L		9.76			08/08/19 11:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	108		80 - 120		08/08/19 11:27	1
4-Bromofluorobenzene (Surr)	88		80 - 120		08/08/19 11:27	1

# Surrogate Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCZ (80-120)	BFB (80-120)
480-157180-1	LVRA-CCA-MW2-PDB-080219	111	88
480-157180-2	LVRA-CCA-MW4-PDB-080219	111	92
480-157180-3	LVRA-CCA-MW5-PDB-080219	115	91
480-157180-4	LVRA-CCA-MW6-PDB-080219	116	92
480-157180-5	LVRA-CCA-MW7-PDB-080219	113	90
480-157180-6	LVRA-CCA-MW9D-PDB-080219	111	91
480-157180-7	LVRA-CCA-MW10-PDB-080219	115	93
480-157180-8	LVRA-CCA-MW11D-PDB-080219	116	91
480-157180-9	LVRA-CCA-MW12-PDB-080219	115	88
480-157180-10	LVRA-CCA-PZ20D-PDB-080219	113	90
480-157180-11	LVRA-GTA-PZ47D-PDB-080219	115	88
480-157180-12	LVRA-GTA-PZ48-PDB-080219	111	91
480-157180-13	FIELD BLANK-080219	110	90
480-157180-14	TRIP BLANK-080219	108	88
LCS 480-485737/4	Lab Control Sample	101	98
LCS 480-485957/4	Lab Control Sample	102	98
LCSD 480-485737/5	Lab Control Sample Dup	99	100
LCSD 480-485957/5	Lab Control Sample Dup	100	97
LLCS 480-485737/6	Lab Control Sample	104	91
LLCS 480-485957/6	Lab Control Sample	102	90
MB 480-485737/7	Method Blank	102	91
MB 480-485957/7	Method Blank	106	88

### Surrogate Legend

DCZ = 1,2-Dichlorobenzene-d4

BFB = 4-Bromofluorobenzene (Surr)

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-485737/7

Matrix: Water

Analysis Batch: 485737

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/07/19 11:16	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/07/19 11:16	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/07/19 11:16	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/07/19 11:16	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/07/19 11:16	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/07/19 11:16	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/07/19 11:16	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/07/19 11:16	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/07/19 11:16	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 11:16	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/07/19 11:16	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/07/19 11:16	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/07/19 11:16	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/07/19 11:16	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/07/19 11:16	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 11:16	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/07/19 11:16	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/07/19 11:16	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/07/19 11:16	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/07/19 11:16	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/07/19 11:16	1
2-Hexanone	ND		5.0	1.0	ug/L			08/07/19 11:16	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/07/19 11:16	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/07/19 11:16	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/07/19 11:16	1
Acetone	ND		5.0	1.0	ug/L			08/07/19 11:16	1
Acrylonitrile	ND		10	2.2	ug/L			08/07/19 11:16	1
Allyl chloride	ND		0.50	0.22	ug/L			08/07/19 11:16	1
Benzene	ND		0.50	0.13	ug/L			08/07/19 11:16	1
Bromobenzene	ND		0.50	0.13	ug/L			08/07/19 11:16	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/07/19 11:16	1
Bromoform	ND		0.50	0.13	ug/L			08/07/19 11:16	1
Bromomethane	ND		0.50	0.23	ug/L			08/07/19 11:16	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/07/19 11:16	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/07/19 11:16	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/07/19 11:16	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/07/19 11:16	1
Chloroethane	ND		0.50	0.20	ug/L			08/07/19 11:16	1
Chloroform	ND		0.50	0.14	ug/L			08/07/19 11:16	1
Chloromethane	ND		0.50	0.17	ug/L			08/07/19 11:16	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/07/19 11:16	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/07/19 11:16	1
Dibromomethane	ND		0.50	0.17	ug/L			08/07/19 11:16	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/07/19 11:16	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/07/19 11:16	1
Ethyl ether	ND		0.50	0.12	ug/L			08/07/19 11:16	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/07/19 11:16	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/07/19 11:16	1

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-485737/7

Matrix: Water

Analysis Batch: 485737

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Iodomethane	ND		0.50	0.15	ug/L			08/07/19 11:16	1
Isopropylbenzene	ND		0.50	0.16	ug/L			08/07/19 11:16	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/07/19 11:16	1
Methylene Chloride	ND		2.5	0.99	ug/L			08/07/19 11:16	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/07/19 11:16	1
Naphthalene	ND		0.50	0.15	ug/L			08/07/19 11:16	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/07/19 11:16	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/07/19 11:16	1
o-Xylene	ND		0.50	0.12	ug/L			08/07/19 11:16	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/07/19 11:16	1
Styrene	ND		0.50	0.13	ug/L			08/07/19 11:16	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/07/19 11:16	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/07/19 11:16	1
Toluene	ND		0.50	0.10	ug/L			08/07/19 11:16	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/07/19 11:16	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/07/19 11:16	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/07/19 11:16	1
Trichloroethene	ND		0.50	0.18	ug/L			08/07/19 11:16	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/07/19 11:16	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/07/19 11:16	1

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Tentatively Identified Compound	None		ug/L					08/07/19 11:16	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichlorobenzene-d4	102		80 - 120		08/07/19 11:16	1
4-Bromofluorobenzene (Surr)	91		80 - 120		08/07/19 11:16	1

Lab Sample ID: LCS 480-485737/4

Matrix: Water

Analysis Batch: 485737

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	4.00	4.25		ug/L		106	70 - 130
1,1,2,2-Tetrachloroethane	4.00	4.04		ug/L		101	70 - 130
1,1,2-Trichloroethane	4.00	4.08		ug/L		102	70 - 130
1,1-Dichloroethane	4.00	3.83		ug/L		96	70 - 130
1,1-Dichloroethane	4.00	3.81		ug/L		95	70 - 130
1,1-Dichloropropene	4.00	3.77		ug/L		94	70 - 130
1,2,3-Trichlorobenzene	4.00	3.97		ug/L		99	70 - 130
1,2,3-Trichloropropane	4.00	3.91		ug/L		98	70 - 130
1,2,4-Trichlorobenzene	4.00	3.78		ug/L		94	70 - 130
1,2,4-Trimethylbenzene	4.00	3.94		ug/L		98	70 - 130
1,2-Dichlorobenzene	4.00	3.85		ug/L		96	70 - 130
1,2-Dichloroethane	4.00	4.01		ug/L		100	70 - 130
1,2-Dichloropropane	4.00	3.96		ug/L		99	70 - 130
1,3,5-Trimethylbenzene	4.00	3.76		ug/L		94	70 - 130

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-485737/4

Matrix: Water

Analysis Batch: 485737

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	4.00	4.00		ug/L		100	70 - 130
1,3-Dichloropropane	4.00	3.96		ug/L		99	70 - 130
1,4-Dichlorobenzene	4.00	4.00		ug/L		100	70 - 130
2,2-Dichloropropane	4.00	3.93		ug/L		98	70 - 130
2-Butanone (MEK)	20.0	21.6		ug/L		108	70 - 130
2-Chlorotoluene	4.00	3.87		ug/L		97	70 - 130
2-Hexanone	20.0	20.5		ug/L		102	70 - 130
4-Chlorotoluene	4.00	3.99		ug/L		100	70 - 130
4-Isopropyltoluene	4.00	3.81		ug/L		95	70 - 130
4-Methyl-2-pentanone (MIBK)	20.0	19.6		ug/L		98	70 - 130
Acetone	20.0	27.6 *		ug/L		138	70 - 130
Benzene	4.00	3.71		ug/L		93	70 - 130
Bromobenzene	4.00	3.93		ug/L		98	70 - 130
Bromochloromethane	4.00	3.93		ug/L		98	70 - 130
Bromoform	4.00	4.44		ug/L		111	70 - 130
Bromomethane	4.00	3.64		ug/L		91	70 - 130
Carbon disulfide	4.00	3.79		ug/L		95	70 - 130
Carbon tetrachloride	4.00	4.75		ug/L		119	70 - 130
Chlorobenzene	4.00	4.00		ug/L		100	70 - 130
Chlorodibromomethane	4.00	4.37		ug/L		109	70 - 130
Chloroethane	4.00	3.88		ug/L		97	70 - 130
Chloroform	4.00	3.84		ug/L		96	70 - 130
Chloromethane	4.00	4.04		ug/L		101	70 - 130
cis-1,2-Dichloroethene	4.00	3.99		ug/L		100	70 - 130
cis-1,3-Dichloropropene	4.00	3.83		ug/L		96	70 - 130
Dibromomethane	4.00	4.13		ug/L		103	70 - 130
Dichlorobromomethane	4.00	4.15		ug/L		104	70 - 130
Dichlorodifluoromethane	4.00	4.08		ug/L		102	70 - 130
Ethylbenzene	4.00	3.80		ug/L		95	70 - 130
Hexachlorobutadiene	4.00	4.04		ug/L		101	70 - 130
Isopropylbenzene	4.00	3.79		ug/L		95	70 - 130
Methyl tert-butyl ether	4.00	3.92		ug/L		98	70 - 130
Methylene Chloride	4.00	4.01		ug/L		100	70 - 130
Naphthalene	4.00	3.62		ug/L		90	70 - 130
n-Butylbenzene	4.00	3.65		ug/L		91	70 - 130
N-Propylbenzene	4.00	3.78		ug/L		94	70 - 130
sec-Butylbenzene	4.00	3.80		ug/L		95	70 - 130
Styrene	4.00	3.90		ug/L		98	70 - 130
tert-Butylbenzene	4.00	3.72		ug/L		93	70 - 130
Tetrachloroethene	4.00	4.00		ug/L		100	70 - 130
Toluene	4.00	3.84		ug/L		96	70 - 130
trans-1,2-Dichloroethene	4.00	3.96		ug/L		99	70 - 130
trans-1,3-Dichloropropene	4.00	3.69		ug/L		92	70 - 130
Trichloroethene	4.00	3.94		ug/L		99	70 - 130
Trichlorofluoromethane	4.00	4.17		ug/L		104	70 - 130
Vinyl chloride	4.00	3.88		ug/L		97	70 - 130

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-485737/4

Matrix: Water

Analysis Batch: 485737

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichlorobenzene-d4	101		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120

Lab Sample ID: LCSD 480-485737/5

Matrix: Water

Analysis Batch: 485737

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	4.00	4.26		ug/L		106	70 - 130	4	20
1,1,1-Trichloroethane	4.00	4.34		ug/L		109	70 - 130	2	20
1,1,2,2-Tetrachloroethane	4.00	3.94		ug/L		99	70 - 130	2	20
1,1,2-Trichloroethane	4.00	4.07		ug/L		102	70 - 130	0	20
1,1-Dichloroethane	4.00	4.02		ug/L		101	70 - 130	5	20
1,1-Dichloroethane	4.00	4.18		ug/L		104	70 - 130	9	20
1,1-Dichloropropene	4.00	4.02		ug/L		101	70 - 130	6	20
1,2,3-Trichlorobenzene	4.00	3.92		ug/L		98	70 - 130	1	20
1,2,3-Trichloropropane	4.00	4.03		ug/L		101	70 - 130	3	20
1,2,4-Trichlorobenzene	4.00	3.86		ug/L		96	70 - 130	2	20
1,2,4-Trimethylbenzene	4.00	3.88		ug/L		97	70 - 130	2	20
1,2-Dichlorobenzene	4.00	3.87		ug/L		97	70 - 130	0	20
1,2-Dichloroethane	4.00	4.14		ug/L		103	70 - 130	3	20
1,2-Dichloropropane	4.00	3.96		ug/L		99	70 - 130	0	20
1,3,5-Trimethylbenzene	4.00	3.91		ug/L		98	70 - 130	4	20
1,3-Dichlorobenzene	4.00	4.08		ug/L		102	70 - 130	2	20
1,3-Dichloropropane	4.00	4.01		ug/L		100	70 - 130	1	20
1,4-Dichlorobenzene	4.00	4.10		ug/L		103	70 - 130	3	20
2,2-Dichloropropane	4.00	4.16		ug/L		104	70 - 130	6	20
2-Butanone (MEK)	20.0	21.1		ug/L		105	70 - 130	2	20
2-Chlorotoluene	4.00	3.92		ug/L		98	70 - 130	1	20
2-Hexanone	20.0	19.2		ug/L		96	70 - 130	6	20
4-Chlorotoluene	4.00	4.02		ug/L		101	70 - 130	1	20
4-Isopropyltoluene	4.00	3.89		ug/L		97	70 - 130	2	20
4-Methyl-2-pentanone (MIBK)	20.0	18.5		ug/L		92	70 - 130	6	20
Acetone	20.0	26.5 *		ug/L		132	70 - 130	4	20
Benzene	4.00	3.98		ug/L		99	70 - 130	7	20
Bromobenzene	4.00	3.95		ug/L		99	70 - 130	1	20
Bromochloromethane	4.00	4.16		ug/L		104	70 - 130	6	20
Bromoform	4.00	4.31		ug/L		108	70 - 130	3	20
Bromomethane	4.00	3.69		ug/L		92	70 - 130	2	20
Carbon disulfide	4.00	3.73		ug/L		93	70 - 130	2	20
Carbon tetrachloride	4.00	4.90		ug/L		123	70 - 130	3	20
Chlorobenzene	4.00	4.06		ug/L		102	70 - 130	2	20
Chlorodibromomethane	4.00	4.21		ug/L		105	70 - 130	4	20
Chloroethane	4.00	4.04		ug/L		101	70 - 130	4	20
Chloroform	4.00	4.06		ug/L		102	70 - 130	6	20
Chloromethane	4.00	4.24		ug/L		106	70 - 130	5	20
cis-1,2-Dichloroethene	4.00	4.21		ug/L		105	70 - 130	5	20
cis-1,3-Dichloropropene	4.00	3.82		ug/L		96	70 - 130	0	20

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-485737/5

Matrix: Water

Analysis Batch: 485737

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromomethane	4.00	4.11		ug/L		103	70 - 130	1	20
Dichlorobromomethane	4.00	4.24		ug/L		106	70 - 130	2	20
Dichlorodifluoromethane	4.00	4.27		ug/L		107	70 - 130	5	20
Ethylbenzene	4.00	3.90		ug/L		97	70 - 130	3	20
Hexachlorobutadiene	4.00	4.05		ug/L		101	70 - 130	0	20
Isopropylbenzene	4.00	3.91		ug/L		98	70 - 130	3	20
Methyl tert-butyl ether	4.00	4.00		ug/L		100	70 - 130	2	20
Methylene Chloride	4.00	4.16		ug/L		104	70 - 130	4	20
Naphthalene	4.00	3.55		ug/L		89	70 - 130	2	20
n-Butylbenzene	4.00	3.71		ug/L		93	70 - 130	2	20
N-Propylbenzene	4.00	3.89		ug/L		97	70 - 130	3	20
sec-Butylbenzene	4.00	3.83		ug/L		96	70 - 130	1	20
Styrene	4.00	4.07		ug/L		102	70 - 130	4	20
tert-Butylbenzene	4.00	3.78		ug/L		94	70 - 130	1	20
Tetrachloroethene	4.00	4.23		ug/L		106	70 - 130	5	20
Toluene	4.00	3.94		ug/L		98	70 - 130	3	20
trans-1,2-Dichloroethene	4.00	4.18		ug/L		104	70 - 130	5	20
trans-1,3-Dichloropropene	4.00	3.64		ug/L		91	70 - 130	1	20
Trichloroethene	4.00	3.98		ug/L		99	70 - 130	1	20
Trichlorofluoromethane	4.00	4.50		ug/L		112	70 - 130	8	20
Vinyl chloride	4.00	4.16		ug/L		104	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichlorobenzene-d4	99		80 - 120
4-Bromofluorobenzene (Surr)	100		80 - 120

Lab Sample ID: LLCS 480-485737/6

Matrix: Water

Analysis Batch: 485737

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	0.500	0.510		ug/L		102	50 - 150
1,1,1-Trichloroethane	0.500	0.551		ug/L		110	50 - 150
1,1,2,2-Tetrachloroethane	0.500	0.540		ug/L		108	50 - 150
1,1,2-Trichloroethane	0.500	0.475	J	ug/L		95	50 - 150
1,1-Dichloroethane	0.500	0.514		ug/L		103	50 - 150
1,1-Dichloroethene	0.500	0.524		ug/L		105	50 - 150
1,1-Dichloropropene	0.500	0.517		ug/L		103	50 - 150
1,2,3-Trichlorobenzene	0.500	0.496	J	ug/L		99	50 - 150
1,2,3-Trichloropropane	0.500	0.483	J	ug/L		97	50 - 150
1,2,4-Trichlorobenzene	0.500	0.500		ug/L		100	50 - 150
1,2,4-Trimethylbenzene	0.500	0.441	J	ug/L		88	50 - 150
1,2-Dichlorobenzene	0.500	0.526		ug/L		105	50 - 150
1,2-Dichloroethane	0.500	0.534		ug/L		107	50 - 150
1,2-Dichloropropane	0.500	0.496	J	ug/L		99	50 - 150
1,3,5-Trimethylbenzene	0.500	0.428	J	ug/L		86	50 - 150
1,3-Dichlorobenzene	0.500	0.516		ug/L		103	50 - 150
1,3-Dichloropropane	0.500	0.490	J	ug/L		98	50 - 150

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LLCS 480-485737/6

Matrix: Water

Analysis Batch: 485737

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.500	0.547		ug/L		109	50 - 150
2,2-Dichloropropane	0.500	0.589		ug/L		118	50 - 150
2-Butanone (MEK)	2.50	3.27	J	ug/L		131	50 - 150
2-Chlorotoluene	0.500	0.493	J	ug/L		99	50 - 150
2-Hexanone	2.50	2.17	J	ug/L		87	50 - 150
4-Chlorotoluene	0.500	0.491	J	ug/L		98	50 - 150
4-Isopropyltoluene	0.500	0.410	J	ug/L		82	50 - 150
4-Methyl-2-pentanone (MIBK)	2.50	2.24	J	ug/L		90	50 - 150
Acetone	2.50	4.35	J *	ug/L		174	50 - 150
Benzene	0.500	0.517		ug/L		103	50 - 150
Bromobenzene	0.500	0.527		ug/L		105	50 - 150
Bromochloromethane	0.500	0.496	J	ug/L		99	50 - 150
Bromoform	0.500	0.472	J	ug/L		94	50 - 150
Bromomethane	0.500	0.607		ug/L		121	50 - 150
Carbon disulfide	0.500	0.571		ug/L		114	50 - 150
Carbon tetrachloride	0.500	0.589		ug/L		118	50 - 150
Chlorobenzene	0.500	0.494	J	ug/L		99	50 - 150
Chlorodibromomethane	0.500	0.510		ug/L		102	50 - 150
Chloroethane	0.500	0.578		ug/L		116	50 - 150
Chloroform	0.500	0.589		ug/L		118	50 - 150
Chloromethane	0.500	0.525		ug/L		105	50 - 150
cis-1,2-Dichloroethene	0.500	0.531		ug/L		106	50 - 150
cis-1,3-Dichloropropene	0.500	0.440	J	ug/L		88	50 - 150
Dibromomethane	0.500	0.498	J	ug/L		100	50 - 150
Dichlorobromomethane	0.500	0.540		ug/L		108	50 - 150
Dichlorodifluoromethane	0.500	0.555		ug/L		111	50 - 150
Ethylbenzene	0.500	0.458	J	ug/L		92	50 - 150
Hexachlorobutadiene	0.500	0.553		ug/L		111	50 - 150
Isopropylbenzene	0.500	0.443	J	ug/L		89	50 - 150
Methyl tert-butyl ether	0.500	0.510		ug/L		102	50 - 150
Methylene Chloride	0.500	ND	*	ug/L		160	50 - 150
Naphthalene	0.500	0.412	J	ug/L		82	50 - 150
n-Butylbenzene	0.500	0.450	J	ug/L		90	50 - 150
N-Propylbenzene	0.500	0.440	J	ug/L		88	50 - 150
sec-Butylbenzene	0.500	0.451	J	ug/L		90	50 - 150
Styrene	0.500	0.421	J	ug/L		84	50 - 150
tert-Butylbenzene	0.500	0.469	J	ug/L		94	50 - 150
Tetrachloroethene	0.500	0.536		ug/L		107	50 - 150
Toluene	0.500	0.484	J	ug/L		97	50 - 150
trans-1,2-Dichloroethene	0.500	0.543		ug/L		109	50 - 150
trans-1,3-Dichloropropene	0.500	0.415	J	ug/L		83	50 - 150
Trichloroethene	0.500	0.509		ug/L		102	50 - 150
Trichlorofluoromethane	0.500	0.544		ug/L		109	50 - 150
Vinyl chloride	0.500	0.592		ug/L		118	50 - 150

Surrogate	LLCS LLCS		Limits
	%Recovery	Qualifier	
1,2-Dichlorobenzene-d4	104		80 - 120
4-Bromofluorobenzene (Surr)	91		80 - 120

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-485957/7

Matrix: Water

Analysis Batch: 485957

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			08/08/19 08:15	1
1,1,1-Trichloroethane	ND		0.50	0.21	ug/L			08/08/19 08:15	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/19 08:15	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			08/08/19 08:15	1
1,1-Dichloroethane	ND		0.50	0.18	ug/L			08/08/19 08:15	1
1,1-Dichloroethene	ND		0.50	0.16	ug/L			08/08/19 08:15	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			08/08/19 08:15	1
1,2,3-Trichlorobenzene	ND		0.50	0.16	ug/L			08/08/19 08:15	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			08/08/19 08:15	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			08/08/19 08:15	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			08/08/19 08:15	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			08/08/19 08:15	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			08/08/19 08:15	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			08/08/19 08:15	1
1,3,5-Trimethylbenzene	ND		0.50	0.13	ug/L			08/08/19 08:15	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			08/08/19 08:15	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			08/08/19 08:15	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			08/08/19 08:15	1
2,2-Dichloropropane	ND		0.50	0.35	ug/L			08/08/19 08:15	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/08/19 08:15	1
2-Chlorotoluene	ND		0.50	0.12	ug/L			08/08/19 08:15	1
2-Hexanone	ND		5.0	1.0	ug/L			08/08/19 08:15	1
4-Chlorotoluene	ND		0.50	0.15	ug/L			08/08/19 08:15	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			08/08/19 08:15	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/08/19 08:15	1
Acetone	ND		5.0	1.0	ug/L			08/08/19 08:15	1
Acrylonitrile	ND		10	2.2	ug/L			08/08/19 08:15	1
Allyl chloride	ND		0.50	0.22	ug/L			08/08/19 08:15	1
Benzene	ND		0.50	0.13	ug/L			08/08/19 08:15	1
Bromobenzene	ND		0.50	0.13	ug/L			08/08/19 08:15	1
Bromochloromethane	ND		0.50	0.11	ug/L			08/08/19 08:15	1
Bromoform	ND		0.50	0.13	ug/L			08/08/19 08:15	1
Bromomethane	ND		0.50	0.23	ug/L			08/08/19 08:15	1
Carbon disulfide	ND		0.50	0.15	ug/L			08/08/19 08:15	1
Carbon tetrachloride	ND		0.50	0.21	ug/L			08/08/19 08:15	1
Chlorobenzene	ND		0.50	0.12	ug/L			08/08/19 08:15	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			08/08/19 08:15	1
Chloroethane	ND		0.50	0.20	ug/L			08/08/19 08:15	1
Chloroform	ND		0.50	0.14	ug/L			08/08/19 08:15	1
Chloromethane	ND		0.50	0.17	ug/L			08/08/19 08:15	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			08/08/19 08:15	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/08/19 08:15	1
Dibromomethane	ND		0.50	0.17	ug/L			08/08/19 08:15	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			08/08/19 08:15	1
Dichlorodifluoromethane	ND		0.50	0.15	ug/L			08/08/19 08:15	1
Ethyl ether	ND		0.50	0.12	ug/L			08/08/19 08:15	1
Ethylbenzene	ND		0.50	0.11	ug/L			08/08/19 08:15	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			08/08/19 08:15	1

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-485957/7

Matrix: Water

Analysis Batch: 485957

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Iodomethane	ND		0.50	0.15	ug/L			08/08/19 08:15	1
Isopropylbenzene	ND		0.50	0.16	ug/L			08/08/19 08:15	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			08/08/19 08:15	1
Methylene Chloride	ND		2.5	0.99	ug/L			08/08/19 08:15	1
m-Xylene & p-Xylene	ND		1.0	0.30	ug/L			08/08/19 08:15	1
Naphthalene	ND		0.50	0.15	ug/L			08/08/19 08:15	1
n-Butylbenzene	ND		0.50	0.081	ug/L			08/08/19 08:15	1
N-Propylbenzene	ND		0.50	0.13	ug/L			08/08/19 08:15	1
o-Xylene	ND		0.50	0.12	ug/L			08/08/19 08:15	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			08/08/19 08:15	1
Styrene	ND		0.50	0.13	ug/L			08/08/19 08:15	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			08/08/19 08:15	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/08/19 08:15	1
Toluene	ND		0.50	0.10	ug/L			08/08/19 08:15	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			08/08/19 08:15	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/08/19 08:15	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			08/08/19 08:15	1
Trichloroethene	ND		0.50	0.18	ug/L			08/08/19 08:15	1
Trichlorofluoromethane	ND		0.50	0.19	ug/L			08/08/19 08:15	1
Vinyl chloride	ND		0.50	0.18	ug/L			08/08/19 08:15	1

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Tentatively Identified Compound	None		ug/L					08/08/19 08:15	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichlorobenzene-d4	106		80 - 120		08/08/19 08:15	1
4-Bromofluorobenzene (Surr)	88		80 - 120		08/08/19 08:15	1

Lab Sample ID: LCS 480-485957/4

Matrix: Water

Analysis Batch: 485957

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
1,1,1,2-Tetrachloroethane	4.00	4.07		ug/L		102	70 - 130
1,1,1-Trichloroethane	4.00	4.35		ug/L		109	70 - 130
1,1,2,2-Tetrachloroethane	4.00	3.81		ug/L		95	70 - 130
1,1,2-Trichloroethane	4.00	3.90		ug/L		97	70 - 130
1,1-Dichloroethane	4.00	3.94		ug/L		98	70 - 130
1,1-Dichloroethene	4.00	3.99		ug/L		100	70 - 130
1,1-Dichloropropene	4.00	3.84		ug/L		96	70 - 130
1,2,3-Trichlorobenzene	4.00	3.69		ug/L		92	70 - 130
1,2,3-Trichloropropane	4.00	3.78		ug/L		94	70 - 130
1,2,4-Trichlorobenzene	4.00	3.61		ug/L		90	70 - 130
1,2,4-Trimethylbenzene	4.00	3.78		ug/L		94	70 - 130
1,2-Dichlorobenzene	4.00	3.73		ug/L		93	70 - 130
1,2-Dichloroethane	4.00	4.12		ug/L		103	70 - 130
1,2-Dichloropropane	4.00	3.86		ug/L		97	70 - 130
1,3,5-Trimethylbenzene	4.00	3.62		ug/L		90	70 - 130

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-485957/4

Matrix: Water

Analysis Batch: 485957

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	4.00	3.88		ug/L		97	70 - 130
1,3-Dichloropropane	4.00	3.87		ug/L		97	70 - 130
1,4-Dichlorobenzene	4.00	3.81		ug/L		95	70 - 130
2,2-Dichloropropane	4.00	4.18		ug/L		104	70 - 130
2-Butanone (MEK)	20.0	21.0		ug/L		105	70 - 130
2-Chlorotoluene	4.00	3.64		ug/L		91	70 - 130
2-Hexanone	20.0	19.1		ug/L		96	70 - 130
4-Chlorotoluene	4.00	3.72		ug/L		93	70 - 130
4-Isopropyltoluene	4.00	3.62		ug/L		91	70 - 130
4-Methyl-2-pentanone (MIBK)	20.0	17.9		ug/L		89	70 - 130
Acetone	20.0	26.8 *		ug/L		134	70 - 130
Benzene	4.00	3.83		ug/L		96	70 - 130
Bromobenzene	4.00	3.62		ug/L		90	70 - 130
Bromochloromethane	4.00	3.96		ug/L		99	70 - 130
Bromoform	4.00	4.17		ug/L		104	70 - 130
Bromomethane	4.00	4.02		ug/L		100	70 - 130
Carbon disulfide	4.00	4.02		ug/L		101	70 - 130
Carbon tetrachloride	4.00	4.93		ug/L		123	70 - 130
Chlorobenzene	4.00	3.89		ug/L		97	70 - 130
Chlorodibromomethane	4.00	4.22		ug/L		105	70 - 130
Chloroethane	4.00	4.05		ug/L		101	70 - 130
Chloroform	4.00	3.96		ug/L		99	70 - 130
Chloromethane	4.00	4.38		ug/L		109	70 - 130
cis-1,2-Dichloroethene	4.00	4.10		ug/L		102	70 - 130
cis-1,3-Dichloropropene	4.00	3.58		ug/L		90	70 - 130
Dibromomethane	4.00	3.93		ug/L		98	70 - 130
Dichlorobromomethane	4.00	4.13		ug/L		103	70 - 130
Dichlorodifluoromethane	4.00	4.44		ug/L		111	70 - 130
Ethylbenzene	4.00	3.72		ug/L		93	70 - 130
Hexachlorobutadiene	4.00	3.95		ug/L		99	70 - 130
Isopropylbenzene	4.00	3.75		ug/L		94	70 - 130
Methyl tert-butyl ether	4.00	3.96		ug/L		99	70 - 130
Methylene Chloride	4.00	4.21		ug/L		105	70 - 130
Naphthalene	4.00	3.29		ug/L		82	70 - 130
n-Butylbenzene	4.00	3.49		ug/L		87	70 - 130
N-Propylbenzene	4.00	3.61		ug/L		90	70 - 130
sec-Butylbenzene	4.00	3.58		ug/L		90	70 - 130
Styrene	4.00	3.82		ug/L		96	70 - 130
tert-Butylbenzene	4.00	3.46		ug/L		87	70 - 130
Tetrachloroethene	4.00	4.05		ug/L		101	70 - 130
Toluene	4.00	3.68		ug/L		92	70 - 130
trans-1,2-Dichloroethene	4.00	4.10		ug/L		102	70 - 130
trans-1,3-Dichloropropene	4.00	3.50		ug/L		88	70 - 130
Trichloroethene	4.00	3.82		ug/L		96	70 - 130
Trichlorofluoromethane	4.00	4.69		ug/L		117	70 - 130
Vinyl chloride	4.00	4.34		ug/L		109	70 - 130

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-485957/4

Matrix: Water

Analysis Batch: 485957

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichlorobenzene-d4	102		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120

Lab Sample ID: LCSD 480-485957/5

Matrix: Water

Analysis Batch: 485957

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	RPD Limit
							Limits	RPD		
1,1,1,2-Tetrachloroethane	4.00	4.09		ug/L		102	70 - 130	0	20	
1,1,1-Trichloroethane	4.00	4.57		ug/L		114	70 - 130	5	20	
1,1,2,2-Tetrachloroethane	4.00	3.84		ug/L		96	70 - 130	1	20	
1,1,2-Trichloroethane	4.00	3.93		ug/L		98	70 - 130	1	20	
1,1-Dichloroethane	4.00	3.94		ug/L		98	70 - 130	0	20	
1,1-Dichloroethane	4.00	4.12		ug/L		103	70 - 130	3	20	
1,1-Dichloropropene	4.00	3.91		ug/L		98	70 - 130	2	20	
1,2,3-Trichlorobenzene	4.00	3.80		ug/L		95	70 - 130	3	20	
1,2,3-Trichloropropane	4.00	3.78		ug/L		94	70 - 130	0	20	
1,2,4-Trichlorobenzene	4.00	3.63		ug/L		91	70 - 130	0	20	
1,2,4-Trimethylbenzene	4.00	3.86		ug/L		96	70 - 130	2	20	
1,2-Dichlorobenzene	4.00	3.77		ug/L		94	70 - 130	1	20	
1,2-Dichloroethane	4.00	4.06		ug/L		102	70 - 130	1	20	
1,2-Dichloropropane	4.00	3.98		ug/L		100	70 - 130	3	20	
1,3,5-Trimethylbenzene	4.00	3.75		ug/L		94	70 - 130	4	20	
1,3-Dichlorobenzene	4.00	3.91		ug/L		98	70 - 130	1	20	
1,3-Dichloropropane	4.00	3.91		ug/L		98	70 - 130	1	20	
1,4-Dichlorobenzene	4.00	3.94		ug/L		99	70 - 130	4	20	
2,2-Dichloropropane	4.00	4.33		ug/L		108	70 - 130	4	20	
2-Butanone (MEK)	20.0	20.4		ug/L		102	70 - 130	3	20	
2-Chlorotoluene	4.00	3.75		ug/L		94	70 - 130	3	20	
2-Hexanone	20.0	18.3		ug/L		91	70 - 130	5	20	
4-Chlorotoluene	4.00	3.77		ug/L		94	70 - 130	1	20	
4-Isopropyltoluene	4.00	3.71		ug/L		93	70 - 130	2	20	
4-Methyl-2-pentanone (MIBK)	20.0	18.0		ug/L		90	70 - 130	1	20	
Acetone	20.0	23.9		ug/L		119	70 - 130	12	20	
Benzene	4.00	3.89		ug/L		97	70 - 130	1	20	
Bromobenzene	4.00	3.70		ug/L		93	70 - 130	2	20	
Bromochloromethane	4.00	4.15		ug/L		104	70 - 130	5	20	
Bromoform	4.00	4.07		ug/L		102	70 - 130	2	20	
Bromomethane	4.00	4.29		ug/L		107	70 - 130	7	20	
Carbon disulfide	4.00	4.15		ug/L		104	70 - 130	3	20	
Carbon tetrachloride	4.00	4.90		ug/L		123	70 - 130	0	20	
Chlorobenzene	4.00	3.88		ug/L		97	70 - 130	0	20	
Chlorodibromomethane	4.00	4.18		ug/L		105	70 - 130	1	20	
Chloroethane	4.00	4.30		ug/L		107	70 - 130	6	20	
Chloroform	4.00	4.01		ug/L		100	70 - 130	1	20	
Chloromethane	4.00	4.30		ug/L		107	70 - 130	2	20	
cis-1,2-Dichloroethene	4.00	4.14		ug/L		103	70 - 130	1	20	
cis-1,3-Dichloropropene	4.00	3.67		ug/L		92	70 - 130	2	20	

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-485957/5

Matrix: Water

Analysis Batch: 485957

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromomethane	4.00	4.17		ug/L		104	70 - 130	6	20
Dichlorobromomethane	4.00	4.21		ug/L		105	70 - 130	2	20
Dichlorodifluoromethane	4.00	4.47		ug/L		112	70 - 130	1	20
Ethylbenzene	4.00	3.76		ug/L		94	70 - 130	1	20
Hexachlorobutadiene	4.00	3.96		ug/L		99	70 - 130	0	20
Isopropylbenzene	4.00	3.75		ug/L		94	70 - 130	0	20
Methyl tert-butyl ether	4.00	3.93		ug/L		98	70 - 130	1	20
Methylene Chloride	4.00	4.18		ug/L		105	70 - 130	1	20
Naphthalene	4.00	3.27		ug/L		82	70 - 130	1	20
n-Butylbenzene	4.00	3.55		ug/L		89	70 - 130	2	20
N-Propylbenzene	4.00	3.70		ug/L		93	70 - 130	3	20
sec-Butylbenzene	4.00	3.65		ug/L		91	70 - 130	2	20
Styrene	4.00	3.90		ug/L		98	70 - 130	2	20
tert-Butylbenzene	4.00	3.52		ug/L		88	70 - 130	2	20
Tetrachloroethene	4.00	4.08		ug/L		102	70 - 130	1	20
Toluene	4.00	3.86		ug/L		97	70 - 130	5	20
trans-1,2-Dichloroethene	4.00	4.12		ug/L		103	70 - 130	0	20
trans-1,3-Dichloropropene	4.00	3.58		ug/L		89	70 - 130	2	20
Trichloroethene	4.00	3.98		ug/L		100	70 - 130	4	20
Trichlorofluoromethane	4.00	4.87		ug/L		122	70 - 130	4	20
Vinyl chloride	4.00	4.35		ug/L		109	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichlorobenzene-d4	100		80 - 120
4-Bromofluorobenzene (Surr)	97		80 - 120

Lab Sample ID: LLCS 480-485957/6

Matrix: Water

Analysis Batch: 485957

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	0.500	0.500		ug/L		100	50 - 150
1,1,1-Trichloroethane	0.500	0.563		ug/L		113	50 - 150
1,1,2,2-Tetrachloroethane	0.500	0.491	J	ug/L		98	50 - 150
1,1,2-Trichloroethane	0.500	0.505		ug/L		101	50 - 150
1,1-Dichloroethane	0.500	0.510		ug/L		102	50 - 150
1,1-Dichloroethene	0.500	0.509		ug/L		102	50 - 150
1,1-Dichloropropene	0.500	0.516		ug/L		103	50 - 150
1,2,3-Trichlorobenzene	0.500	0.474	J	ug/L		95	50 - 150
1,2,3-Trichloropropane	0.500	0.426	J	ug/L		85	50 - 150
1,2,4-Trichlorobenzene	0.500	0.458	J	ug/L		92	50 - 150
1,2,4-Trimethylbenzene	0.500	0.412	J	ug/L		82	50 - 150
1,2-Dichlorobenzene	0.500	0.496	J	ug/L		99	50 - 150
1,2-Dichloroethane	0.500	0.514		ug/L		103	50 - 150
1,2-Dichloropropane	0.500	0.491	J	ug/L		98	50 - 150
1,3,5-Trimethylbenzene	0.500	0.396	J	ug/L		79	50 - 150
1,3-Dichlorobenzene	0.500	0.503		ug/L		101	50 - 150
1,3-Dichloropropane	0.500	0.493	J	ug/L		99	50 - 150

Eurofins TestAmerica, Buffalo

# QC Sample Results

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LLCS 480-485957/6

Matrix: Water

Analysis Batch: 485957

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.500	0.508		ug/L		102	50 - 150
2,2-Dichloropropane	0.500	0.605		ug/L		121	50 - 150
2-Butanone (MEK)	2.50	2.98	J	ug/L		119	50 - 150
2-Chlorotoluene	0.500	0.444	J	ug/L		89	50 - 150
2-Hexanone	2.50	2.11	J	ug/L		85	50 - 150
4-Chlorotoluene	0.500	0.444	J	ug/L		89	50 - 150
4-Isopropyltoluene	0.500	0.410	J	ug/L		82	50 - 150
4-Methyl-2-pentanone (MIBK)	2.50	2.08	J	ug/L		83	50 - 150
Acetone	2.50	4.62	J *	ug/L		185	50 - 150
Benzene	0.500	0.539		ug/L		108	50 - 150
Bromobenzene	0.500	0.499	J	ug/L		100	50 - 150
Bromochloromethane	0.500	0.495	J	ug/L		99	50 - 150
Bromoform	0.500	0.460	J	ug/L		92	50 - 150
Bromomethane	0.500	0.452	J	ug/L		90	50 - 150
Carbon disulfide	0.500	0.541		ug/L		108	50 - 150
Carbon tetrachloride	0.500	0.596		ug/L		119	50 - 150
Chlorobenzene	0.500	0.524		ug/L		105	50 - 150
Chlorodibromomethane	0.500	0.517		ug/L		103	50 - 150
Chloroethane	0.500	0.499	J	ug/L		100	50 - 150
Chloroform	0.500	0.545		ug/L		109	50 - 150
Chloromethane	0.500	0.451	J	ug/L		90	50 - 150
cis-1,2-Dichloroethene	0.500	0.547		ug/L		109	50 - 150
cis-1,3-Dichloropropene	0.500	0.445	J	ug/L		89	50 - 150
Dibromomethane	0.500	0.551		ug/L		110	50 - 150
Dichlorobromomethane	0.500	0.513		ug/L		103	50 - 150
Dichlorodifluoromethane	0.500	0.483	J	ug/L		97	50 - 150
Ethylbenzene	0.500	0.448	J	ug/L		90	50 - 150
Hexachlorobutadiene	0.500	0.561		ug/L		112	50 - 150
Isopropylbenzene	0.500	0.422	J	ug/L		84	50 - 150
Methyl tert-butyl ether	0.500	0.506		ug/L		101	50 - 150
Methylene Chloride	0.500	ND	*	ug/L		182	50 - 150
Naphthalene	0.500	0.370	J	ug/L		74	50 - 150
n-Butylbenzene	0.500	0.410	J	ug/L		82	50 - 150
N-Propylbenzene	0.500	0.420	J	ug/L		84	50 - 150
sec-Butylbenzene	0.500	0.411	J	ug/L		82	50 - 150
Styrene	0.500	0.429	J	ug/L		86	50 - 150
tert-Butylbenzene	0.500	0.406	J	ug/L		81	50 - 150
Tetrachloroethene	0.500	0.547		ug/L		109	50 - 150
Toluene	0.500	0.470	J	ug/L		94	50 - 150
trans-1,2-Dichloroethene	0.500	0.532		ug/L		106	50 - 150
trans-1,3-Dichloropropene	0.500	0.411	J	ug/L		82	50 - 150
Trichloroethene	0.500	0.478	J	ug/L		96	50 - 150
Trichlorofluoromethane	0.500	0.500		ug/L		100	50 - 150
Vinyl chloride	0.500	0.503		ug/L		101	50 - 150

Surrogate	LLCS LLCS		Limits
	%Recovery	Qualifier	
1,2-Dichlorobenzene-d4	102		80 - 120
4-Bromofluorobenzene (Surr)	90		80 - 120

# QC Association Summary

Client: New York State D.E.C.  
 Project/Site: Little Valley #905026

Job ID: 480-157180-1

## GC/MS VOA

### Analysis Batch: 485737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157180-1	LVRA-CCA-MW2-PDB-080219	Total/NA	Water	524.2	
480-157180-2	LVRA-CCA-MW4-PDB-080219	Total/NA	Water	524.2	
480-157180-3	LVRA-CCA-MW5-PDB-080219	Total/NA	Water	524.2	
480-157180-4	LVRA-CCA-MW6-PDB-080219	Total/NA	Water	524.2	
480-157180-5	LVRA-CCA-MW7-PDB-080219	Total/NA	Water	524.2	
480-157180-6	LVRA-CCA-MW9D-PDB-080219	Total/NA	Water	524.2	
480-157180-7	LVRA-CCA-MW10-PDB-080219	Total/NA	Water	524.2	
480-157180-8	LVRA-CCA-MW11D-PDB-080219	Total/NA	Water	524.2	
480-157180-9	LVRA-CCA-MW12-PDB-080219	Total/NA	Water	524.2	
MB 480-485737/7	Method Blank	Total/NA	Water	524.2	
LCS 480-485737/4	Lab Control Sample	Total/NA	Water	524.2	
LCSD 480-485737/5	Lab Control Sample Dup	Total/NA	Water	524.2	
LLCS 480-485737/6	Lab Control Sample	Total/NA	Water	524.2	

### Analysis Batch: 485957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-157180-10	LVRA-CCA-PZ20D-PDB-080219	Total/NA	Water	524.2	
480-157180-11	LVRA-GTA-PZ47D-PDB-080219	Total/NA	Water	524.2	
480-157180-12	LVRA-GTA-PZ48-PDB-080219	Total/NA	Water	524.2	
480-157180-13	FIELD BLANK-080219	Total/NA	Water	524.2	
480-157180-14	TRIP BLANK-080219	Total/NA	Water	524.2	
MB 480-485957/7	Method Blank	Total/NA	Water	524.2	
LCS 480-485957/4	Lab Control Sample	Total/NA	Water	524.2	
LCSD 480-485957/5	Lab Control Sample Dup	Total/NA	Water	524.2	
LLCS 480-485957/6	Lab Control Sample	Total/NA	Water	524.2	

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-MW2-PDB-080219**

**Lab Sample ID: 480-157180-1**

Date Collected: 08/02/19 13:30

Matrix: Water

Date Received: 08/02/19 17:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485737	08/07/19 16:14	CDC	TAL BUF

**Client Sample ID: LVRA-CCA-MW4-PDB-080219**

**Lab Sample ID: 480-157180-2**

Date Collected: 08/02/19 13:00

Matrix: Water

Date Received: 08/02/19 17:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485737	08/07/19 16:39	CDC	TAL BUF

**Client Sample ID: LVRA-CCA-MW5-PDB-080219**

**Lab Sample ID: 480-157180-3**

Date Collected: 08/02/19 09:30

Matrix: Water

Date Received: 08/02/19 17:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485737	08/07/19 17:05	CDC	TAL BUF

**Client Sample ID: LVRA-CCA-MW6-PDB-080219**

**Lab Sample ID: 480-157180-4**

Date Collected: 08/02/19 12:00

Matrix: Water

Date Received: 08/02/19 17:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485737	08/07/19 17:30	CDC	TAL BUF

**Client Sample ID: LVRA-CCA-MW7-PDB-080219**

**Lab Sample ID: 480-157180-5**

Date Collected: 08/02/19 12:30

Matrix: Water

Date Received: 08/02/19 17:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485737	08/07/19 17:55	CDC	TAL BUF

**Client Sample ID: LVRA-CCA-MW9D-PDB-080219**

**Lab Sample ID: 480-157180-6**

Date Collected: 08/02/19 11:30

Matrix: Water

Date Received: 08/02/19 17:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485737	08/07/19 18:20	CDC	TAL BUF

**Client Sample ID: LVRA-CCA-MW10-PDB-080219**

**Lab Sample ID: 480-157180-7**

Date Collected: 08/02/19 11:00

Matrix: Water

Date Received: 08/02/19 17:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485737	08/07/19 18:46	CDC	TAL BUF

Eurofins TestAmerica, Buffalo

# Lab Chronicle

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

**Client Sample ID: LVRA-CCA-MW11D-PDB-080219**

**Lab Sample ID: 480-157180-8**

Date Collected: 08/02/19 10:00

Matrix: Water

Date Received: 08/02/19 17:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485737	08/07/19 19:11	CDC	TAL BUF

**Client Sample ID: LVRA-CCA-MW12-PDB-080219**

**Lab Sample ID: 480-157180-9**

Date Collected: 08/02/19 10:30

Matrix: Water

Date Received: 08/02/19 17:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485737	08/07/19 19:36	CDC	TAL BUF

**Client Sample ID: LVRA-CCA-PZ20D-PDB-080219**

**Lab Sample ID: 480-157180-10**

Date Collected: 08/02/19 14:00

Matrix: Water

Date Received: 08/02/19 17:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485957	08/08/19 09:45	LCH	TAL BUF

**Client Sample ID: LVRA-GTA-PZ47D-PDB-080219**

**Lab Sample ID: 480-157180-11**

Date Collected: 08/02/19 14:30

Matrix: Water

Date Received: 08/02/19 17:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485957	08/08/19 10:11	LCH	TAL BUF

**Client Sample ID: LVRA-GTA-PZ48-PDB-080219**

**Lab Sample ID: 480-157180-12**

Date Collected: 08/02/19 14:45

Matrix: Water

Date Received: 08/02/19 17:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485957	08/08/19 10:36	LCH	TAL BUF

**Client Sample ID: FIELD BLANK-080219**

**Lab Sample ID: 480-157180-13**

Date Collected: 08/02/19 15:15

Matrix: Water

Date Received: 08/02/19 17:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485957	08/08/19 11:01	LCH	TAL BUF

**Client Sample ID: TRIP BLANK-080219**

**Lab Sample ID: 480-157180-14**

Date Collected: 08/02/19 00:00

Matrix: Water

Date Received: 08/02/19 17:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	485957	08/08/19 11:27	LCH	TAL BUF

**Laboratory References:**

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Eurofins TestAmerica, Buffalo

# Accreditation/Certification Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

## Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
524.2		Water	2-Butanone (MEK)
524.2		Water	2-Hexanone
524.2		Water	Acrylonitrile
524.2		Water	Allyl chloride
524.2		Water	Carbon disulfide
524.2		Water	Ethyl ether
524.2		Water	m-Xylene & p-Xylene
524.2		Water	o-Xylene
524.2		Water	trans-1,4-Dichloro-2-butene

# Method Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

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Method	Method Description	Protocol	Laboratory
524.2	Volatile Organic Compounds (GC/MS)	EPA-DW	TAL BUF

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**Protocol References:**

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

**Laboratory References:**

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600



# Sample Summary

Client: New York State D.E.C.  
Project/Site: Little Valley #905026

Job ID: 480-157180-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-157180-1	LVRA-CCA-MW2-PDB-080219	Water	08/02/19 13:30	08/02/19 17:41	
480-157180-2	LVRA-CCA-MW4-PDB-080219	Water	08/02/19 13:00	08/02/19 17:41	
480-157180-3	LVRA-CCA-MW5-PDB-080219	Water	08/02/19 09:30	08/02/19 17:41	
480-157180-4	LVRA-CCA-MW6-PDB-080219	Water	08/02/19 12:00	08/02/19 17:41	
480-157180-5	LVRA-CCA-MW7-PDB-080219	Water	08/02/19 12:30	08/02/19 17:41	
480-157180-6	LVRA-CCA-MW9D-PDB-080219	Water	08/02/19 11:30	08/02/19 17:41	
480-157180-7	LVRA-CCA-MW10-PDB-080219	Water	08/02/19 11:00	08/02/19 17:41	
480-157180-8	LVRA-CCA-MW11D-PDB-080219	Water	08/02/19 10:00	08/02/19 17:41	
480-157180-9	LVRA-CCA-MW12-PDB-080219	Water	08/02/19 10:30	08/02/19 17:41	
480-157180-10	LVRA-CCA-PZ20D-PDB-080219	Water	08/02/19 14:00	08/02/19 17:41	
480-157180-11	LVRA-GTA-PZ47D-PDB-080219	Water	08/02/19 14:30	08/02/19 17:41	
480-157180-12	LVRA-GTA-PZ48-PDB-080219	Water	08/02/19 14:45	08/02/19 17:41	
480-157180-13	FIELD BLANK-080219	Water	08/02/19 15:15	08/02/19 17:41	
480-157180-14	TRIP BLANK-080219	Water	08/02/19 00:00	08/02/19 17:41	

CHAIN OF CUSTODY RECORD

Client/Project Name: NYDEC/AECOM/watts Little Valley Site		Project Location: Little Valley, NY		Analysis Requested		Container Type 1 - HCl, 4" 2 - H2SO4, 4" 3 - HNO3, 4" 4 - NaOH, 4" 5 - NaOH/ZnAc, 4" 6 - Na2S2O3, 4" 7 - 4"		Preservation	
Project Number: 6026-6877-1		NYDEC Site ID: 9.05-026		FEDEx/UPS Tracking Number: Hand Deliver		Matrix Codes DW - Drinking Water WW - Wastewater GW - Groundwater SW - Surface Water ST - Storm Water W - Water		S - Soil SI - Sludge SD - Sediment SO - Solid A - Air L - Liquid P - Product	
Send Results/Report to: AECOM 40 British American Blvd Latham, NY 12110		FedEx/UPS Tracking Number: Hand Deliver		Project Manager: Steve Choiniere		TAT: Standard		Remarks	
Sampler: MELT/MPG		Date		Time		Samp Containers		Preserv	
Field Sample No./Identification		Date		Time		Matrix		Preserv	
LVRA-CCA-MW2-PDB-080219		8-2-19		1330		GW		1	
LVRA-CCA-MW4-PDB-080219		8-2-19		1300		GW		1	
LVRA-CCA-MW5-PDB-080219		8-2-19		0930		GW		1	
LVRA-CCA-MW6-PDB-080219		8-2-19		1200		GW		1	
LVRA-CCA-MW7-PDB-080219		8-2-19		1230		GW		1	
LVRA-CCA-MW9D-PDB-080219		8-2-19		1130		GW		1	
LVRA-CCA-MW10-PDB-080219		8-2-19		1100		GW		1	
LVRA-CCA-MW11D-PDB-080219		8-2-19		1000		GW		1	
LVRA-CCA-MW12-PDB-080219		8-2-19		1030		GW		1	
LVRA-CCA-P220D-PDB-080219		8-2-19		1430		GW		1	
LVRA-CCA-P247D-PDB-080219		8-2-19		1430		GW		1	
LVRA-GTA-P248-PDB-080219		8-2-19		1445		GW		1	
Field Blank-080219		8-2-19		15:15		W		1	
Trip Blank-080219		8-2-19		15:15		W		1	
Relinquished by: Will Scher		Date: 8/2/19		Time: 1741		Received by: Caroline		Additional Remarks: MNA Sampling Passive Diffusion Bags #1 3.3	
Relinquished by:		Date:		Time:		Received by:		Sample Shipped Via: UPS FedEx Courier Other	
Relinquished by:		Date:		Time:		Received by:		Temp blank Yes	



Serial No. 594



## Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-157180-1

**Login Number: 157180**

**List Source: Eurofins TestAmerica, Buffalo**

**List Number: 1**

**Creator: Wallace, Cameron**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	



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## ATTACHMENT D

POET Data

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**Table 2**  
**Little Valley Site, Little Valley and Salamanca, NY**  
**Historical Raw Water Analytical Summary**  
**Site ID # 9-05-026**

ID#	Last Name of Resident(s) / Name of Business in 2018	October-02	October-03	October-04	October-05	October-06	October-07	October-08	September-09	September-10	October-11	September-12	September-13	September-14	October-15	October-16	October-17	September-18
		TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE							
1	Meritool	7	6	5	7	6	5	3 J	4.3	4.3	3.5	NS	3.5	3.2	3.4	2.7	ND	2.4
2	NYSDOT 1	7	7	6	8	7	6	4 J	2.4	4.4	3.8	3.8/3.4*	4.3	3.8	3.3	2.5	3.2	2.2/ *2.1
3	Ebert	6/7*	0.6 J	6	8	6	5	4 J	3.9	4.4	3.7	4.1	2.6	3.5	3.4	2.9	2.4	2.5
4	Nuszkowski	8	7	6	NS	6	5	4 J	5	5.1	3.8	3.9	2.2	NS	NS	2.9	2.9	NS
5	Robison	8	6	5	6	6	6	3 J	4.6	4.6	3.4	4.1	3.7	3.0	3.1	2.5	2.8	2.6
6	Crist	3	4	3	4	3/3*	4	2 J	2.7/ 3.0*	1.5	1.3	2.8	3.3	1.6	1.8	2.2	1.9	1.5
8	Felt	6	5	4	5	4	4	3 J	3.6	3.6	2.5	3.0	2.7	2.4	2.3	2.1	2.1	1.9
9	Urbanski	6	NS	5	7	4	5	3 J	2.8/ 2.9*	4.5	3.0	3.6	4.1/ 3.9*	3.4	3.4	2.7	3.1	2.5
11	Story	5	4	3	4	4	4	2 J	2.7	3.0	2.4	2.3	3.2	2.2	1.9	2.1	2.4	1.7
12	Mansour	7	7	5	6	6	6/ 6*	2 J	3.7	3.6	2.7	2.0	1.9	2.9	2.7	2.1	2.2	2.2
13	Smith	6	5	4	5	4	4	3 J	3.3	3.2	2.6	1.7	3.4	2.1	2.1	1.9	2.2	1.9
14	Anderson	6/6*	5	5	6	5	4	3 J	2.7	4.6	2.4	2.0	2.1	2.5	2.8	2.1	2.4/ 2.7*	2.1/ *2.1
15	Mosher	6	ND	5	6	2	5	3 J/ 2 J*	4.3	3.4	2.1	3.4	1.9	2.4	2.5	2.3	2.7	2.3
17	Griffin	6/7*	8	5	7	6	5	3 J	4.9	2.7	3.2	3.7	4.0	3.3	3.2	3.0	3.2	2.8
18	Sibley	7	6	6	6	6	4	3 J	4.3	3.6	3.0	2.8	3.6	2.8	2.5	2.2	2.5	2.4
19	Burger	6	6	5	7	6	4	3 J	4.4	3.5	2.2	2.7	1.7	2.4	2.1	2.0	2.4	2.2/ *2.2
21	Delmonaco	20/21*	24	20	22	22	11	10	14	11	8.1	9.7	10	8.0	7.3/ 7.2*	6.1	5.7	7.2
28	Schoonmaker	8	8	6/ 7*	8	6	6	4 J	6.3	5.7	4.8 B	4.8	4.9	3.9	3.8	3.0	2.8	2.9/ *2.8
29	Urbanski	6	ND	3	4	4	4/ 4*	2 J	3.2	2.0	1.9	2.1	2.7	2.2	2.0/ 1.9*	2.1	2.4	1.9
30	Raahauge	5	5	4	5	4	4	2 J/ 2 J*	4	4.1/ 4.8*	2.6	3.4	3.1	2.6	2.7	2.5	2.3/ 0.14* J	2.1
32	Bantin	4/4*	4/4*	3	5	3	3	2 J	2.9	2.9	1.9	2.2	2.2	2.0	2.1	1.8	2.0	1.9
33	Slevinski	5	5	4	5	6	5	3 J/ 3 J*	2.7	2.4	3.1	3.7	1.9	3.0	3.0	2.1	2.6	2.4
35	Lavalle	14	13	12	15	16	10	5 J	7	5.9/ 6.9*	6.5	6.5	9.0	6.1	5.9	5.8	5.2	4.5
36	Storey	10	11	10	13/ 13*	11	8	5 J	7.2	6.3	5.8	5.7	5.5	4.3/ 4.4*	4.4	4.1	ND	3.7
40	Milks	7	NS	6	8	7	5	3 J	5.4	5.9	4.3	4.4	4.0	3.5	2.7	3.0/ 3.0*	3.6	2.7
44	Askey	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	Hamilton	ND	23	16	17	21	11	8 J	10/ 12*	14	7.8	8.3/ 7.8*	5.3	6.6	6.7	5.4	7.4	6.2
46	Johns	20	24	20	11	22	12	10 J	12	11	6.6/ 9.8*	7.7	11/ 9.7*	6.4	8.0	6.1	7.0	7.4
47	Foster	18	19	NS**	23	21	13	9 J	13	14	9.5	4.5	7.1	8.2	7.7	NS	8.0	6.6/ *6.4
51	Anderson	5	4	3	4	4	4	3 J	1.9	3.8	3.2	1.7/ 1.6	3.3	2.2	2.2	1.8	2.6	1.9
53	McClure	16	15	15	15	16	9	NS	12	12	8.9	8.7/ 10*	9.2	7.3	7.4	6.2	6.5	6.2
57	Valley View Church	5	6	4	5	4	3/ 3*	3 J	3.2/ 3.0*	3.0	1.9	2.5	ND	1.9	1.8	1.8/ 1.7*	1.9/ 1.9*	1.5
62	Johnson	6	6	4	1	7	5	4 J	3.6	5.8	4.0	0.65	3.4	3.5/ 3.3*	2.5	0.6	1.8	1.3
64	Winship	8	9	8	7	8	7	4 J	5.8	3.6	3.4	3.6	4.5	2.7	3.5	2.5	3.0	3.0
65	Strong	17	21	22	16/ 16*	22	14/ 14*	9 J	16	10/ 12*	8.3/ 7.3*	6.6	10	7.8	8.1	6.1	6.8	6.6
79	McClain	7	7	5	7	5	5	3 J	4.2	4.8	3.3	3.4	3.4	2.2	2.4	1.9	2.9	2.3
86	Geiser	NS	6	6	7	6	5	4 J	2.5	4.2	3.5	1.7	3.3	3.1	3.0	2.8	2.0	2.8
87	Baker	8	6/6*	5	7	6	5	3 J	4.9	4.8	2.6	4.1	3.3	2.4	2.9/ 3.2*	2.6	2.7	2.0
91	Kaye	6	7	6	7	7	6	3 J/ 4 J*	4.1	4.6	3.7	4.3/ 4.1*	3.0	3.5	3.1	3.1	3.1	2.9
92	Bridenbaker	12	0	3	2	12	5	4 J/ 4 J*	7.2	6.3/ 7.3*	5.3	1.2	4.9	4.3	3.5	1.2	2.7	NS
95	Rider	6	6	4	5	6	5	3 J	2.8	2.5	3.3	3.2	3.9	3.1	3.3	2.4/ 2.3*	2.7	2.6
96	Lecceardone	7	7	6	8	6/ 9*	6	3 J	3.4	5.2	2.2	4.0	3.1	2.6/ 2.6*	2.6/ 2.5*	2.3	2.2/ 2.1*	1.6
99	McGraw	4	4	3	4	3/ 3*	3	2 J	2.5	2.6	ND	1.9	2.1/ *1.0	1.5	1.7	NS	1.5/ 1.6*	1.4

**Notes:**

Table only includes TCE results in raw water. Refer to Table 3 for a comprehensive list of analytes included in EPA Method 524.2.

Other notable detections (excluding methylene chloride and acetone) for this round only are listed below:

- ID #9 R - 0.16 J B Chloroform
- ID #21 R - 0.32 J PCE; 0.20 J Benzene; 0.22 J cis-1,2-Dichloroethene; 0.73 Isopropylbenzene
- ID #45 R - 0.25 J PCE; 0.17 J cis-1,2-Dichloroethene
- ID #46 R - 0.26 J PCE; 0.16 J cis-1,2-Dichloroethene
- ID #47 R - 0.23 J PCE; 0.13 J cis-1,2-Dichloroethene/ 0.21 J PCE; 0.14 J cis-1,2-DCE
- ID #53 R - 0.21 J PCE

- All concentrations are in micrograms per liter ug/L
- ND indicates below detection limit (0.50 ug/L)
- NS indicates no sample was taken
- \* indicates duplicate sample
- J indicates estimated value
- B = Compound was found in the blank and sample

**Table 2, continued**  
**Little Valley Site, Little Valley and Salamanca, NY**  
**Historical Raw Water Analytical Summary**  
**Site ID # 9-05-026**

ID#	Last Name of Resident(s) / Name of Business in 2018	October-02	October-03	October-04	October-05	October-06	October-07	October-08	September-09	September-10	October-11	September-12	September-13	September-14	October-15	October-16	October-17	September-18
		TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE
104	Lawrence	8	9	9	10	7	8	4 J	5	4.6	5.1	3.4	3.2	4.0	4.2/ 4.2*	3.7	4.4	3.7
105	Pangborn	7	7	6	7	7	4	3 J	4.1 / 4.4*	5.0	3.3	3.5/ 3.5*	3.9	3.0	2.5	2.2	2.6	2.2
106	Sluga	7	8	6	8	7	6	4 J	4.8	5.2	2.4	3.7	2.3	2.8	3.1	2.8	2.8	2.7
107	Wolford	8	8	7	8	7/8*	6	4 J	6.1	5.3	3.1	2.8	4.9	3.7	3.4	3.2/ 3.0*	3.4	2.9
108	Zimbardi	8	4	3/4*	0.5 J	3	2	4 J	5.7	4.4	3.7/3.9*	4.1	4.6	3.3	2.9	2.6	2.9	2.4
109	Keyes	9	7	6	5	6	5	final only	5.1	4.1	3.5	3.9	2.8	NS	2.9	1.9	2.0	2.4
110	Grover	9	10	8	9	9	7	4 J	6.3	3.7	4.7	4.6/ 4.5*	8.3	4.1	3.9	3.4	4.1	3.2
111	Shinners	3	ND	2	3	2	3	2 J	2	1.7	1.5	1.7	1.8	1.4	1.3	1.0	1.4	1.0
117	Mansour	17	17	15	21/21*	20	13	8 J	9.4	8.3	7.5	8.3	9.4	6.3	6.8	6.0	4.6	5.5
118	Robison	7	7	6	7	6	6	4 J	5.1	4.7	3.7	4.3	2.9	3.5	3.6	2.2	2.6	3.0
119	Greene	7	6	5	6	6	7	4 J	4.6	5.9	4.2	4.5	3.2	3.4/ 3.6*	3.4	3.3	3.0	2.7
120	Skudlarek	8	7	6	7	7	6	3 J	5.2 / 5.1*	4.5	3.6	3.7	4.6	3.2	3.1	2.4	2.8	2.4
121	Elkdale RV Resort & Guest House	8	7	6	8	3	5	4 J	5.2	3.9	3.8	3.9	4.1	3.1	3.1	3.0	NS	2.3
122	Wylie	5/5*	6	5/6*	6	6	6	3 J	4.6	4.8	2.7	3.5	3.9	2.5	2.9	2.9/ 2.9*	2.4	2.5
125	Brodie	4	4	3	4	4	3	2 J	2.6	2.7/2.2*	2.4 B	0.93	1.9	2.0	2.1	1.6	2.1	1.7
127	Lichy	4	4	4	5	5	4	3 J	2.9	4.0	2.9	2.1	1.2	2.5	2.6	2.2	2.3	1.9
133	Jackson	6	6	5	6	6	4	3 J	3.8	5.0	3.3	4.0	4.3	2.9	3.3	2.5	2.8	2.9/ *2.8
134	Jackson	6	6	5	6	6	5	3 J	2.7	4.7/4.4*	3.3	ND	4.2	2.9	3.3	2.5	2.7	2.5
135	Community Action	6	6	5	6	5	6	3 J	4.5	4.4	3.5 B	3.6	4.8	3.4	3.3	2.4	3.2	2.6
136	Home demolished	7	7	6	7	8	6	4 J	5.5	5.4	2.9	4.0	4.1	Well abandoned; home demolished				
137	Salamanca Town Hall	7	7	6	7	7	6	4 J	3	5.3	3.0	4.3/ 4.3*	4.2	ND	3.7	3.0	3.2	3.0/ *2.8
153	VACANT	7	HOME VACANT															
154	Robinson	8	6	6	8/8*	7	5	2 J	5.1	4.6 <sup>N</sup>	4.9	3.4	4.3	4.0 <sup>N</sup>	3.3	3.0	3.5	2.9
157	Hart	4	3	3	5	3	3	2 J	2.3	2.0	2.3/2.5*	2.7	1.4	1.9	1.8	2.1	1.8/ 1.7*	1.7
162	Williams	8	7	5	6	6	5 / 5*	3 J	4.5	3.7/4.1*	2.9	2.0/ 1.6*	2.4	2.9	2.7	2.6	2.5	2.2
163	Elkdale CC Staff House	5	5	4	4	4/4*	4	2 J	3.1 / 3.1 *	1.9	1.6	1.8	2.3	1.8	1.8	1.8	1.8	1.6
164	Urbanski	NS	NS	2	2	2	3	2 J	2.3	1.6	1.4	1.6	1.2	0.81	1.5	1.2	1.6	1.1
166	Rebesch	9	8	7	8	8	6	3 J	5.5	6.1	3.8	4.4	5.6	3.7/ 3.8*	3.4	2.7	2.9	2.9
168	Pachan	3	3	2/2*	2	2	2	1 J	1.7	1.6	1.1	1.4	1.4	1.0	1.1/ 1.1*	1.1	0.8	0.74
170	Whitcomb	8	7	6	8	7	7	4 J	5.5	4.8	4.0	3.0	2.4/**2.4	3.8 <sup>N</sup> / 3.8 <sup>N</sup>	3.4	2.6	3.4/ 3.6*	2.8
171	Paprocki	8	8	5	8	6	7	4 J	5.8	5.8	4.0/4.1*	4.6/ 4.2*	4.2/**3.7	3.2	3.6/ 3.5*	2.9/ 3.0*	3.0	2.7
172	Lecceardone	7	6	6	7	5	6	3 J	5.2 / 5.4*	4.5	2.4	4.0	3.9	3.1	3.1	ND	2.7	2.4
173	Cooney	3	ND	0.4 J	2	0.1 J	2	1 J	1.2	0.38 J	0.63	0.89	0.42 J	ND	ND	ND	0.15 J/ 2.4*	ND
174	Hubbard	8	6	7	8	8	6 / 3*	3 J	4.1	3.2	3.9/3.9*	2.5	4.3	3.0/ 1.9*	3.4	3.2/ 3.3*	2.9	2.6/ *2.7
176	Bognar	8	7	6	8	7	6	4 J/4 J*	4.4	5.2	1.9/1.5*	3.6	4.1	3.2	3.3	2.6	2.8	2.6
178	Alexander	2	2	2	3	2	2	1 J	1.8	0.88	1.5 B	1.7	1.2	1.2	1.2	1.4	1.3	0.84
184	Lavalle	9	8/8*	7	11	10	6	4 J	5	6.6	4.9 B	5.4	2.8	5.0 <sup>N</sup>	4.4	3.8	3.7	3.2
185	Banner	ND	0.3 J	6	0.9 J	0.7 J	1	0.7 J	1.4	1.9	1.6	1.9	2.8	2.2/ 2.2*	3.0	3.2	4.6	3.9
186	Gross	6	4	4	6	5	5	2 J	2.3	2.0/2.2*	2.0	3.2	2.6/**2.5	2.2	2.2/ 2.2*	2.4	2.1	2.0
187	Mets	8	8	8	10	7	7	4 J	2.8	5.9	4.4	4.3/ 4.2*	2.4	3.4	3.3	3.7	3.2	2.6
189	Halterman & Storey	19	21	19	24/12*	18 D	17	9 J	14	8.0	9.9	9.2	5.5/**3.2	8.6	2.2	7.0	8.2	6.9
195	Carley	5	6	4	6	5	5 / 5*	3 J	3.5	4.8	3.3	3.0	1.8	2.8/ 2.9*	2.7/ 2.8*	2.3	2.3	2.1
206	NYSDOT 2	5	4/4*	3	5	4	3	2 J	2.8	3.2	3.7	3.5	3.2	3.0	3.2	2.9	3.8	2.7
207	Shaul	5	5	4	4	4	5	2 J	1.8	1.3	2.4 B	2.8	2.9	2.0	2.3	2.0	2.2	1.9
209	Elkdale Country Club	5	4	3	4	4	NS	2 J	3.3	3.0	2.2	2.4/ 2.2*	2.3	1.8	1.6	1.4	1.3	1.2
210	Zimbardi Electric	NS	NS	0.7 J	4	3	3	2 J	3.3	2.6	2.4	2.5	3.0	2.4	2.5	2.1	2.1	1.9
211	Bognar	NS	NS	NS	23	22	15	12	16	15	9.6 B	NS	NS	NS	3.7	5.9/ 6.1*	5.2	7.1

Notes:

Table only includes TCE results in raw water. Refer to Table 3 for a comprehensive list of analytes included in EPA Method 524.2.  
Other notable detections (excluding methylene chloride and acetone) for this round only are listed below:

- ID #108 R - 0.15 J B Chloroform
- ID #117 R - 0.22 J PCE; 0.13 J cis-1,2-Dichloroethene
- ID #125 R - 0.14 J B Chloroform
- ID #173 R - 0.17 J Toluene
- ID #189 R - 0.21 J PCE; 0.15 J cis-1,2-Dichloroethene
- ID #211 R - 0.26 J PCE; 0.22 J Carbon Disulfide; 0.15 J cis-1,2-Dichloroethene

- All concentrations are in micrograms per liter ug/L
- ND indicates below detection limit (0.50 ug/L)
- NS indicates no sample was taken
- \* indicates duplicate sample
- J indicates estimated value
- <sup>N</sup> indicates sample was taken in November
- B indicates compound was found in the blank and sample
- D indicates the sample was diluted